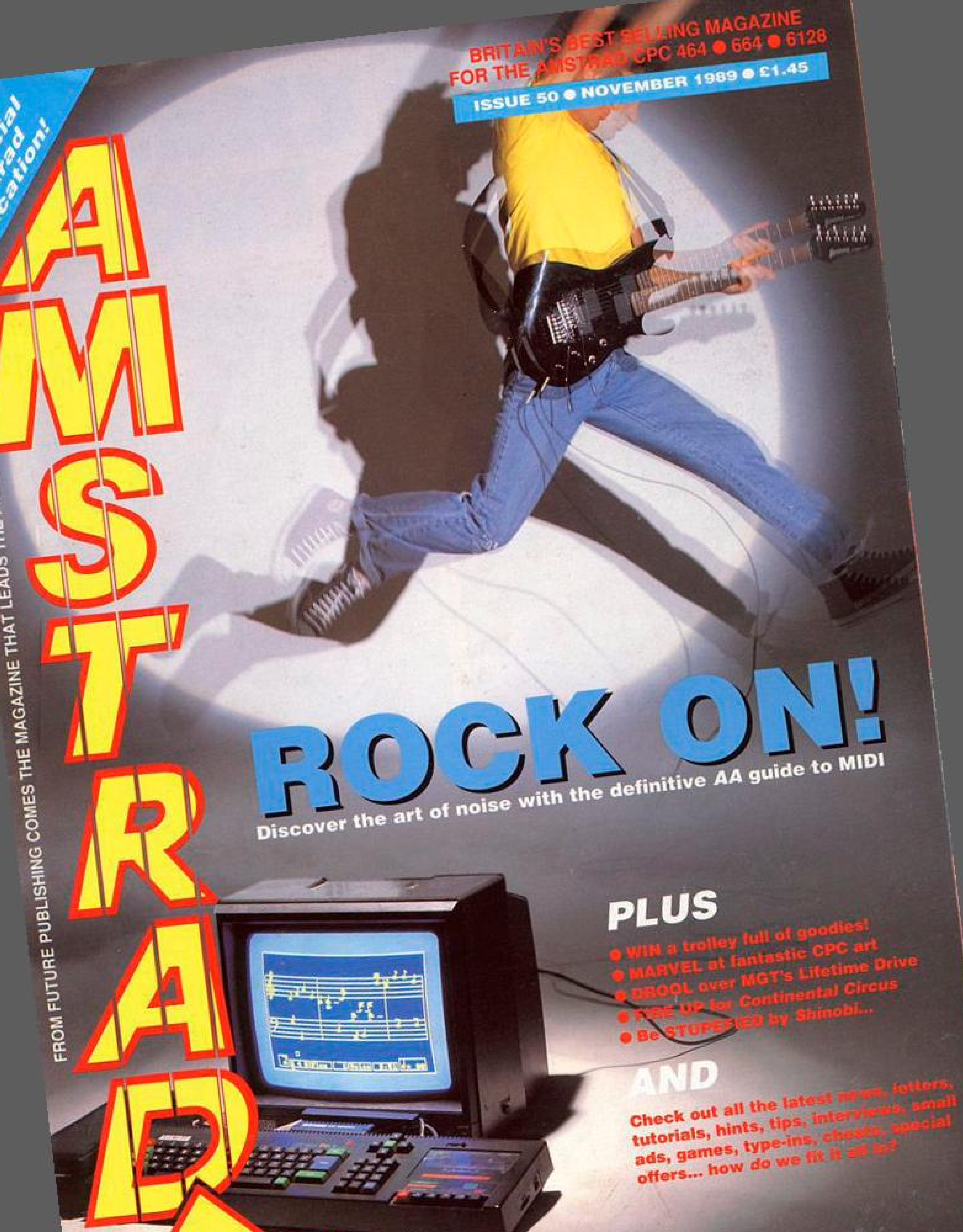
BRITAIN'S BEST SELLING MAGAZINE FOR THE AMSTRAD CPC 464 ● 664 ● 6128

ISSUE 50 ● NOVEMBER 1989 ● £1.45

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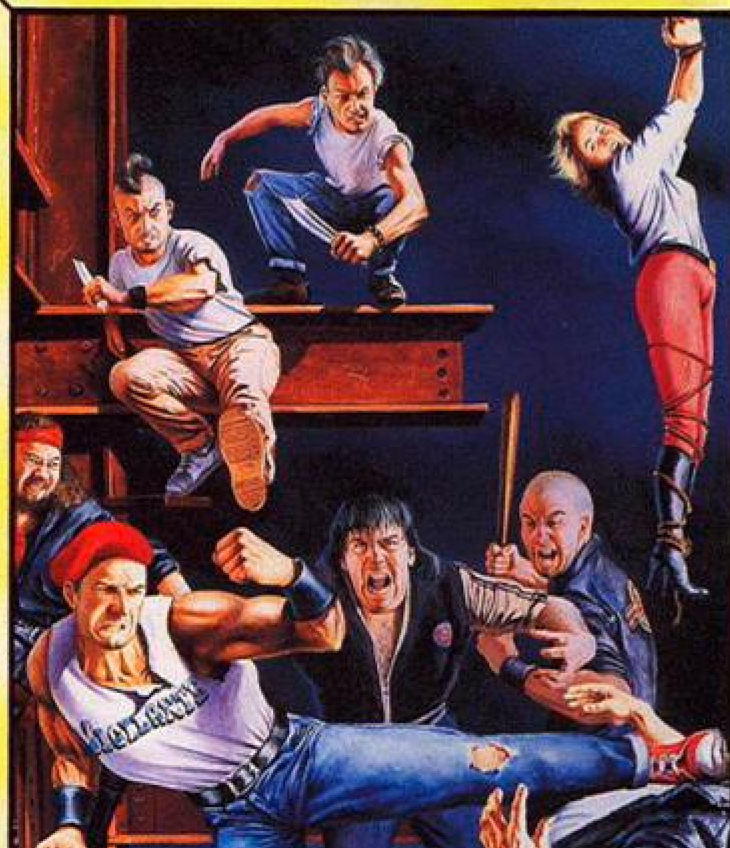






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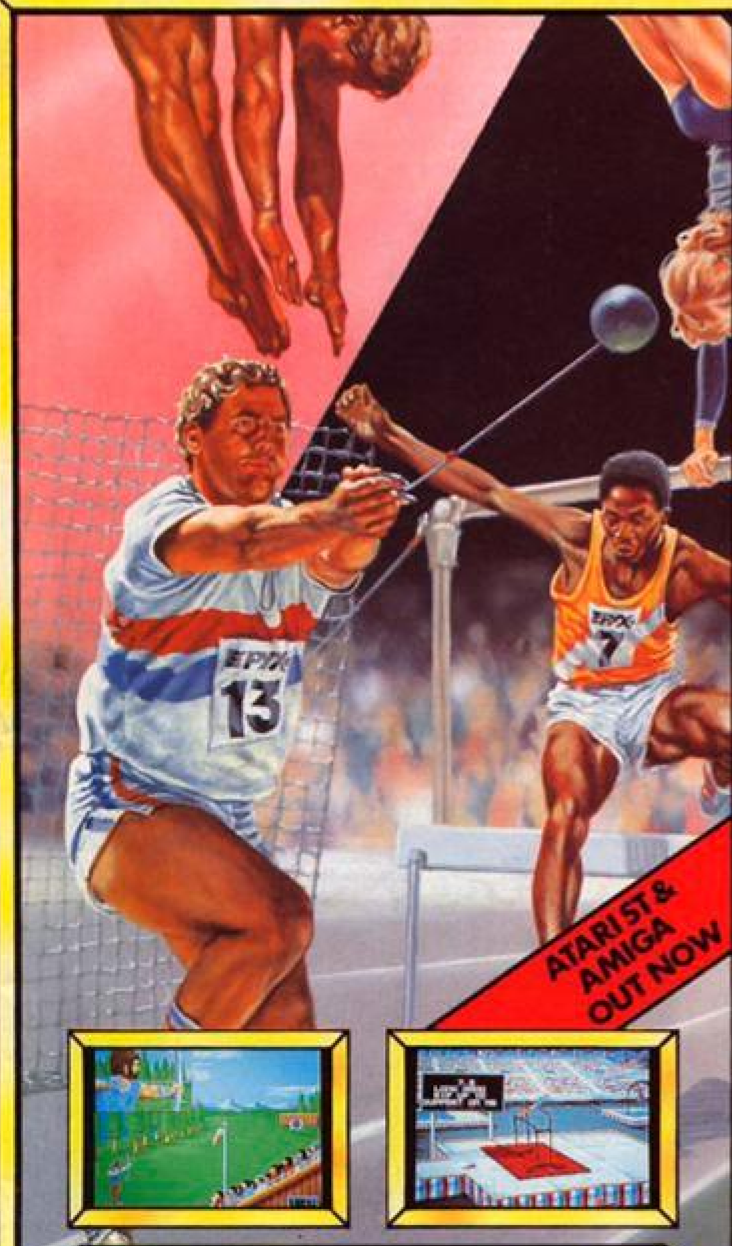
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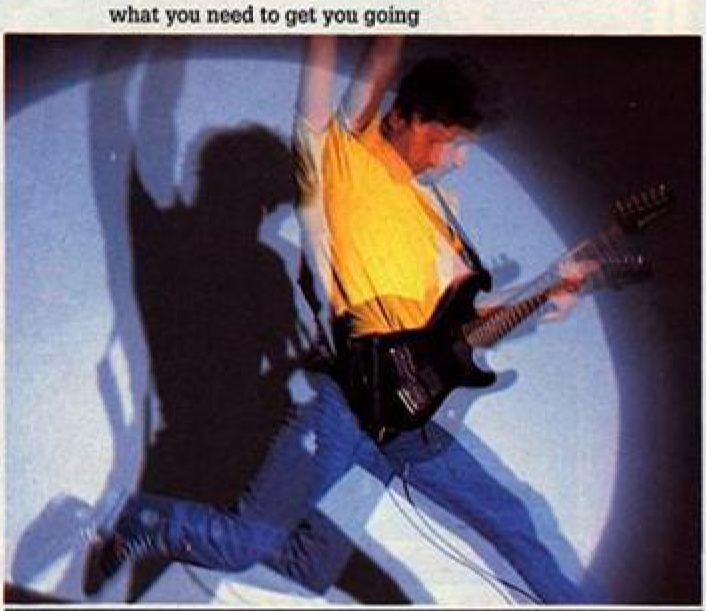
FRONT END

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July-December 1988

THE ACTION BEGINS ON 43!

THE VERY BEST IN CPC ENTERTAINMENT

RAVE!



MASTER GAME





All change

This month sees the arrival of *AA*'s new Technical Editor, Adam Waring. Adam's a crack coder who's worked for Codemasters, Players, Firebird and others, so what he doesn't know about the CPC you could print on the back of a Z80. He'll be on hand to answer all your technical questions as well as write about those nadgery complicated bits that only Technical Editors can write about. Stepping into the departing Pat McDonald's (ample) shoes, Adam's got a hard ac to follow, but we're sure he's up to the challenge.

Unfortunately I won't be around to see him do it. After 16 issues I'm off to pastures new (=I'm being put out to grass). I shall miss *AA* enormously – not just the team, but all you loyal readers. Next month Rod Lawton comes steaming in as my replacement: *AA* couldn't be in better hands. I'm sure he'll give to, and get from, *AA* as much as I have.

Bye everyone,



Steve



Blow the Lid off your Micro!

The highly acclaimed program creator now gets even better!

Pandora has been greeted as a breakthrough in program development. It was specially written to drive the CPC's unique features to the limits, and now incorporates many new functions suggested by enthusiastic owners.

Here are some of the power-packed features from version 1.00

- Uses simple Basic commands
- Needs no knowledge of assembler
- Up to 48 standard or animated sprites
- Automatic animation and movement of sprites
- Super fast multi-featured sprite editor
- Compiles to stand-alone programs
- Can compile to memory for quick debugging
- Works with Basic or all wordprocessors that produce Ascii files
- Can compile directly from Protext memory
- Extensive graphics and sound facilities
- Comprehensive manual with examples
- Several demonstrations and working games included
- You can sell programs written with Pandora

But that's just for starters. Remember that Pandora is unique in that it has the features YOU want. At the request of many delighted owners, the latest version is now supplied with the following extras:

- Local variables
- Facility to call machine code routines
- Load files anywhere in memory
- Load and save sound envelopes
- Hex constants supported
- Simple use of logical operators
- Nested "FOR-NEXT" loops
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Because Pandora is evolving all the time, we'll keep you up to date with enhancements, and for just £4.95 you'll be able to upgrade to the latest version! Also including the new version 2.00 due out in November and featuring numerous new enhancements.

Order your copy today and very shortly you'll be writing your own professional games in a fraction of the usual time, and without the fuss.

What the Press say

"This could be the start of something big" - New Computer Express, June 1989

"Easy to use sprite editor... Commands which any Basic programmer will understand... Writing your own games on the CPC has never been easier" - Amstrad User Club Newsletter, July 1989.

"You'd be astonished at what you can do with Pandora... The sprite handling offers exciting possibilities to the games writer... Pandora's advantage is its superior flexibility... looks like becoming an important addition to the CPC software catalogue" - Amstrad Action, August 1989.

ORDER FORM

AA11

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AMSTRAD CONSOLES ITSELF

● The secret is out! New CPC-based console on the way



● The multi-talented CPC: is there a console version on the way?

In a surprise move, Amstrad plans to launch a new CPC-based console machine in April next year.

The new machine will not feature new technology, however. Leaked information indicates that developers have been told to dismantle a CPC and rebuild it as a 256K console. Games would be supplied on ROM cards.

Prices have yet to be announced, but to succeed the consoles will almost certainly have to cost around the £70 mark or less.

What's also not clear yet is whether the console will feature additional graphics and sound hardware over the CPC. Here, Amstrad could face something of a Catch-22 situation. Without dedicated hardware, a CPC-based console would have its work cut out competing with such machines as the 8-bit Sega, currently enjoying a new lease of life. On the other hand, if the boys at Brentwood do incorporate extra hardware, the machine is unlikely to be able to access the CPC's huge software base.

Amstrad boss Alan Sugar has been wanting to get into the console market for some time now, so the development of a CPC-based console might seem a logical move. It might also be, however, that with five years of manufacture behind it, CPC internals can now be turned out for next to nothing.

What is for sure, however, is that if Amstrad is to make a success of a CPC-based console it's going to have to use every ounce of its admittedly formidable marketing muscle.

Amstrad itself is keeping tight-lipped on the whole subject.

Future looks great

To coincide with *Amstrad Action*'s fourth birthday celebrations the magazine's latest ABC figures have just come in. With circulation figures for the period from January to June 1989 totalling 35,189, Future Publishing's *Amstrad Action* is the only 8-bit magazine to show a year-on increase in sales.

Greg Ingham, publisher of *Amstrad Action*, says, "The figures show what a strong and healthy market the CPC supports. We look forward to further growth in this area."

We can't take all the credit though. Those figures only go to show what a loyal and discerning bunch of readers you are, and demonstrate the CPC's continuing popularity.

And as for the future – well, you ain't seen nuthin' yet!



Dixons slashes CPC prices

Dixons has announced huge cuts in CPC prices in its shops. Both the 464 and 6128 have been reduced by up to £150 – a massive saving which brings the CPC directly in line, pricewise, with the ageing Spectrum and Commodore 64.

You will now buy a colour CPC464 for around £200, and a CPC6128 for a mere £250. For anyone who's been hovering on the brink of buying a CPC or upgrading their machine, there's never been a better time to buy.

Dixons' bargains won't last forever, though. As soon as current CPC stocks are exhausted, the offer won't be repeated. As the chain moves upmarket into the high-powered business PC arena, shelf space is at a premium, and the CPC simply isn't cost-effective.

It's not known how many machines Dixons currently have stockpiled, but the bargain prices are sure to lead to a surge in the CPC market, both in terms of hardware and software sales. If only Amstrad itself had offered those prices in the first place...

● Dixons' decision to take the CPC range from its shelves has revitalised the old "Amstrad to axe CPC shock horror" rumours. They could even be right – after all, any machine can only go on so long. However, given a) the CPC's current strength and b) the number of times that rumour's been round before, you needn't hold your breath.



● Dixons' CPC price bonanza – limited period only.

Spectravideo takes control

The latest "joystick" from Spectravideo is in fact nothing of the sort. The company itself prefers to call it a "game controller" – a suitably blanket phrase for an object that looks like nothing you've ever seen before.

Actually, that's not strictly true. The Quickshot QS 129 resembles nothing more than a pair of motorcycle handlebars. The idea is that you should grasp it would both hands (as in the photo), with your left thumb controlling cursor movement and your right the fire button. The QS 129's design, it's reckoned, will enable the player to "almost forget it's there".



● Spectravideo,bringing new meaning to 'hands on computing'

Hopefully the Spectravideo's new game controller will prove more inspiring than the Wizmaster. The QS 129 will cost £12.50, while the best-selling Quickshot Turbo comes down to £10.50. You can find out more on 01 900 0024.

Dizzy goes 0898



Codemasters' cuddly cartoon character Dizzy is so popular that he could soon have his own *hotline*. Listed amongst the likes of Sexy Suzy, and Pouting Patrica, the premium rate helpline – costing 25p to 38p per minute – will offer hints and tips in solving the Dizzy arcade adventures. A spokesman from Codemasters complained that they get so many telephone calls and letters from baffled gamesters, that an automatic helpline with a taped message is the only way to appease the overworked staff.



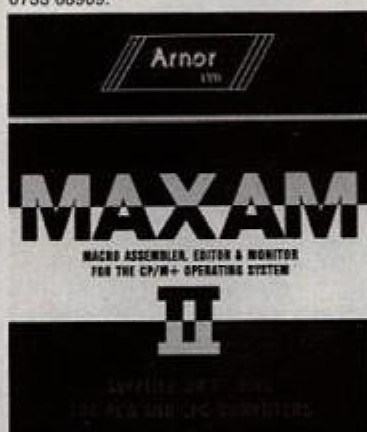
● Codemasters has hit the big time well and truly with *Rockstar* – a whole spread in Machester's *City Life*...!

Arnor going cheap

Arnor Ltd, widely regarded as the king of serious software, is having a sale of disk-based programs for the CPC range. The company is running a number of special offers on many of its products, some of which are now less than half the original price.

- *Protext*, the best-selling word processor, has had £10 lopped off its price tag, and comes with the bonus of a free tutorial book, *Protext, A PCW Users Guide*, written by Future Publishing's very own Rob Ainsley. The new price is £49.90
- Arnor's highly acclaimed assembler *Maxam II* sees its price slashed by half, down from £49.95 to £24.
- The BCPL systems programing language has also had a hefty price cut, from £24.95 to £12.

A spokesman for Arnor assured us that the CPC was assured of the company's continued support. Contact Arnor on 0733 68909.



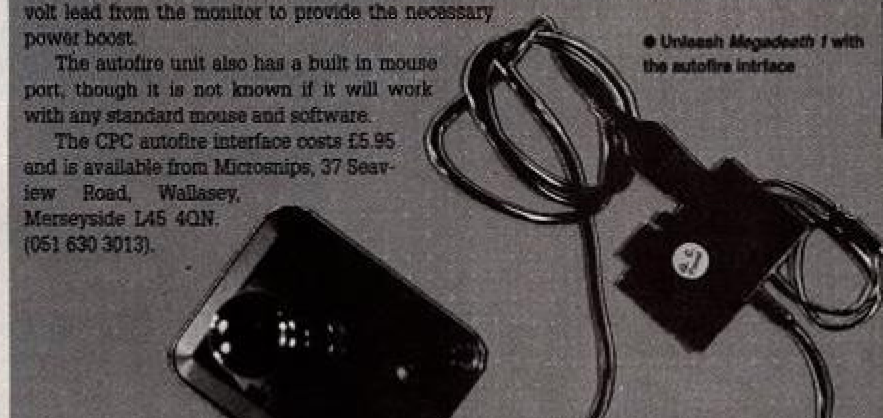
Fire away

One of the most annoying features of the CPC as far as the games player is concerned, is the lack of compatability with autofire joysticks. This is because the CPC cannot deliver enough power from the nine pin 'D' socket to drive the rapid fire circuits inside the joysticks.

Mail order specialist Microsnips has come up with a solution, an auto-fire joystick adaptor. The device sits between the joystick port and the stick itself, and takes the power from the five volt lead from the monitor to provide the necessary power boost.

The autofire unit also has a built in mouse port, though it is not known if it will work with any standard mouse and software.

The CPC autofire interface costs £5.95 and is available from Microsnips, 37 Seaview Road, Wallasey, Merseyside L45 4QN. (051 630 3013).


● Unleash *Megadeath 1* with the autofire intrface

1992 and all that

Organisers of the Amstrad Expo '89 in France are reported to be expecting nearly half a million people through their doors this October. While this figure was described as optimistic by the *Amstrad Cent Pour Cent* Magazine, it shows the CPC's strength across the water.

The market does seem to be little different though, a factor apparent in the magazines. *Amstrad Cent Pour Cent* features preview comics to draw in the punters while its type-in sections demand new levels of typing accuracy. One recent listing reaching a staggering 1523 lines!



Luke out

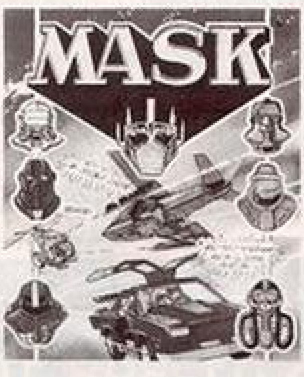
Movie-going gamesplayers have had something of a feast recently, with *Indy Jones*, *James Bond* and *Batman* to name but a few. But surely the biggest treat of all is about to hit with the *Star Wars Trilogy*. Comprising all three mega-movie/arcade conversions, the games get sequentially stronger as the compilations are all trotted out for Christmas. Domark has come up with a real contender.



● *The Empire and your joystick take a three game bashing thanks to Domark*

Cradle-snatchers

Byteback has caused something of a stir with its new advertising campaign. To publicise *Kendo Warrior*, *Mask* and *Cosmic Pirate* it is to run a series of ads in the *Beano* and the *Dandy*. With a circulation figure of around 500,000, the exposure is going to be unprecedented. It'll be interesting to see whether such aggressive marketing will pay off with such a young target market.



E.I.Oh!

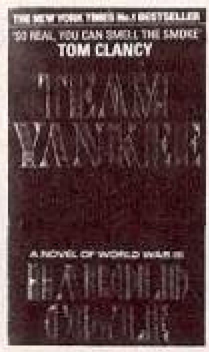
Entertainment International is continuing its assault on the software market with three more outstanding projects for the winter months. After the earth shaking *Gazza's Super Soccer* comes *Knight Force*, *Team Yankee* and *Dr Doom's Revenge*.

Knightforce promises to be the hack and slash epic of the season if it can live up to its billing. You star as the the knight of thunder, protector of the people of Bel-loth. The battle to rescue a kidnapped princess takes him beyond the city limits and into a chase across time.

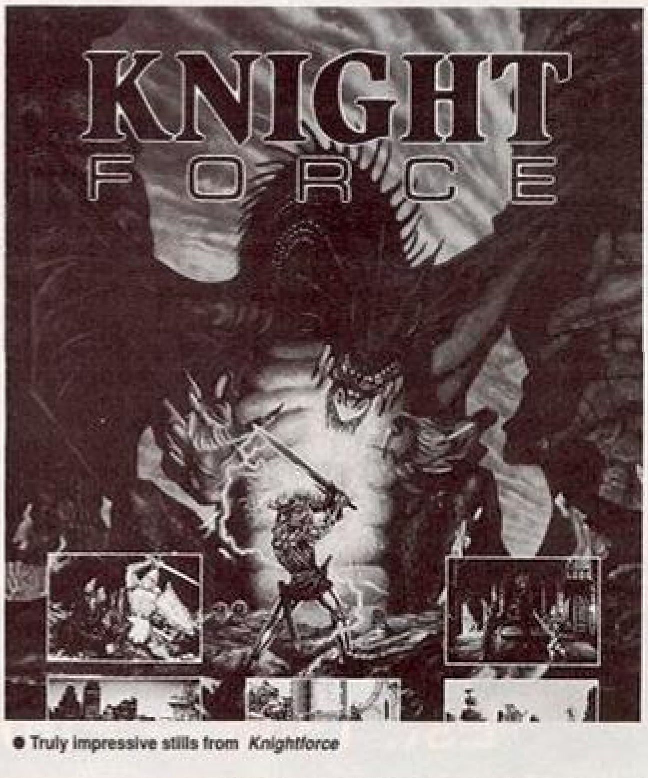


The game features five time zones each with a massive twenty five levels. Mix this up with great graphic animation and the only problem will be finding a disk big enough to hold it!

Team Yankee is another attempt to make good software out of literature. This time you are part of a tank group in the NATO's last stand against the might of the Russian Red Army. The three key elements are seen to be the using as much of the book as possible, the accuracy of the tank simulation and the split screen perspective views of the different members of *Team Yankee*. So it could be good news for Sims fans but bad news for those who hate reviewers' bad tank puns!



Last but not least is news of another Marvel superhero blasting on to the CPC screen. Captain America makes his second appearance in game form, this time to thwart *Dr Dooms Revenge*. Little is known at the moment about the plot, but coming from the same stable as *Crazy Cars II* with its overscan pictures and *Titan*, the fastest-scrolling game in the history of the Amstrad, you know it has every chance of being a doozy.



● **Truly impressive stills from *Knightforce***

REACTION

AA's poor old postman has to climb the stairs with yet another bulging postbag...

A letter can make all the difference (it brought the *Pilgrim* back!). So write to: *Reaction, AA*, 4 Queen St, Bath BA1 1EJ.

And in case you need any more incentive, there's £15 on offer for the letter of the month!

●Sit down for your rights

May I say that, despite being a 6128 owner, I find all this talk about Amstrad's attitude to the future of the CPC range to be rather out of place.

Amstrad is in business to make and sell computers (and other products) and nothing else. If you buy a CPC, you have no right to the continuation of the range, or to any supporting products, or component parts. Neither do you have the right to have your letters to them answered, or the right to a free telephone enquiry service. Your only legal right is that the machine continues to operate for the guarantee period. After that, you are on your own.

Of course it is a lot nicer to have lots of fellow users, software companies, firmware manuals, experienced repairers, good magazines etc, and these are more likely to predominate while the range is current – but we have no right to their existence.

As stated, Amstrad's job is to make and sell as many computers as it can, to pay its shareholders the biggest dividends. If they decide to overprice, or undermarket the CPC, to kill it off, or to cut their own throats, then it's past customers will have to lump it, unless they can voice their opinions as shareholders.

The best way for Amstrad to sell more computers is to get all the past customers to ditch their old machines, and buy the latest model every few years. The trouble is, most CPC users (including me) won't do it. The CPC is too good, and the upgrade products are incompatible, but I don't blame Amstrad for trying.

John Fairlie
Bristol

AA: The question of 'rights' is a very difficult one. There is nothing specifically wrong with what you say, John, but you have to exercise a little common sense too. Most would agree that when they buy a complex and expensive machine, they are also buying a certain amount of future support – by implication, even if it's not in the small print. To use your argument, you might just as well say Ford motor company has a right to stop selling the Escort when it likes, melt down its entire stock of spares and withdraw all workshop manuals! It's not hard to imagine the reaction of most drivers!

Still, we're awarding you Letter of the Month for making some pretty reasonable points, blast you – and as a change from the usual "Alan Sugar should be boiled in oil for what he's done to the CPC etc etc etc.

●Join the club

I am in need of your assistance I purchased a Amstrad CPC464 about six months ago. Ever since then I have bought *Amstrad Action* magazine, and every month you slip in a leaflet to join the Home Computer Club. The first time I saw this leaflet I was thrilled to know that I would be able to join.

Well, I have been trying to join now for six months, I fill the leaflet in and send it off, but to my dispair, I have no reply from them. I have sent off four of these leaflets, but still no reply. I have written letters but still no reply, does this Home Computer Club even exist? If it does could you please try and help me out, by contacting them for me (as I had no luck). If you could ask them to write to me so I could join, it would be fully appreciated.

Michael Schofield
Halesworth, Suffolk

AA: Well there you go. Perhaps someone from the Home Computer Club reading this will get in touch with Michael?

●Shot down in flames...

I would like to question one aspect of Trenton Webb's *Laser Squad* review, in *AA* 49, page 50.

He claims it is "accurately simulating the one-to-one combat up



rebel space marines". How can this be stated with any certainty? Has Trenton served with 'rebel space marines'? surely the accuracy of a 'simulation' can only be judged by someone with an intimate knowledge of the subject being simulated!

Without this knowledge, how can a judgement of the simulation's accuracy be made?

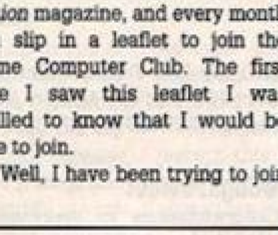
He also intimates that he has served in Vietnam! (2nd column, 18th line.) He's been around a bit, hasn't he!

Apart from that I must say it was a good review, and I really think I ought to try the game out.

Steve Lee
Ramsey, Huntingdon

P.S. A warm welcome back to the Pilgrim! Long may he grace the pages of the best colour Amstrad magazine around.

AA: Trenton assures us he has spent some time as a rebel space marine, though it was shortly after he served in Korea and before he went to Vietna



● Trenton was in fact a rebel space marine – an accident with a warp drive is what left him so horribly disfigured...

●There's no accounting for it

I am the newly elected treasurer of our local Amstrad Users Club, and shortly after taking office, I decided to get 'a bit of software' to tidy up the accounts. Imagine my surprise when a leading software retailer in the city told me that "there is nothing availiable for the CPC range, but we think there is a bloke living on the Gold Coast (of Queensland) who has written a program that will do the job".

Enter AA46, right on cue. The *AA Buyers Guide* 'Business/Accounts' section has listed a number of accounting modules from SD Microsystems. But there's no address listed in the Buyers Guide, so we can't write! Telecom require a fee the size of the National Debt to telephone the UK from *Australia so could you please* a) phone SDM for me and ask them to send me details of their accounting software, and b) get them an advert in your illustrious magazine so that others may gain the advantage of knowing what they are about. You might like to remind them of the slogan that doing business without advertising is like winking at a girl in the dark – you know what you are doing but no-one else does!!

Ric Allberry
Brisbane Amstrad Computer Club

AA: Consider it done.

●Displeasure, disgruntlement, malcontent,

I was pleased to see your review of *Keyword* in AA 49, but would like to coment on some of the points you raised.

First the good news. We have reduced the price of *Keyword* to £19.95 on disk, proir to the release of a new ROM-based version – due out within a couple of months.

Now on to your points. It is true that *Keyword* takes up a fair amount of memory, but with the disk version this is unavoidable due to the amount of data packed into the program. However, as you mentioned, it does work from within the *Protext* ROM, leaving over 12k free for text.

With regard to your comment of *Keyword* only having 10,000 synonyms and 1,000 subject headings. This limitation is brought about by the amount of information you can squeeze onto one side of a 3" disk. However, for each word you select, you are presented with up to 40 synonyms (many more than you get with some printed thesauruses – or is that thesauri?), which, based on the 1,000 main subject headings, gives you an effective vocabulary of up to 40,000 words.

Again, you picked up on a number of words you felt should have been included. Particular ones being believe, amaze, bland, condemn, diagnose, emend, feature, grill and hip.

Taking these in turn, typing *bel* at the main prompt offers the word belief. Amaze, bland, condemn, grill and hip are not in the dictionary – although many synonymns of these words are. Typing *diag* reveals diagnosis, and feature definately *is* in the dictionary!!

So if the first word you think of doesn't happen to be there, the second or third almost certainly will.

One of the essential benifits of a disk-based thesaurus you didn't mention, though, is that with *Key-word*'s linked hypertext-like structure, you can instantly follow avenues of thought, roaming through the database, at many times the speed you can look up just one word in a printed thesaurus.

However, as always, we have listned to your comments and when the new ROM version is released, virtually all the CPC's main memory will remain available to the user, plus we are looking at adding a facility whereby you can include your own words in the database.

Anyway, those points apart, I still think *AA* is the best read you can get for the CPC. By the way. If any of your readers would like a copy of *Keyword*, they are available from our new address: **6 Ennerdale Road, Stockport, Cheshire, SK1 4NR.**

Robin Nixon
Swift Software

●Needing a fix

Please help me. Shortly after I bought my 6128 at Christmas, the keyboard was damaged – in particular, the keys A, S, E, C and the spacebar. A terrible nuisance to keyboard players or in general use. I have tried several places to see if I can get it fixed but they have not answered, gone bankrupt or do not fix personal computers any more. I am sure there are a lot of people with damaged CPC's so it would be a help to all of us if you could perhaps give us an address or dealer.

Thomas Wilkins
Solihull

AA: *Try VSE Technical Services, Dept 104, Unit 6, 8 Nursery Road, London SW9 8BP (01 737 0234)*

●Sugar sweet

Congratulations to everyone on the AA team for producing such a wonderful mag.

But just before you shove this letter aside with all the other letters of congratulations, I would like to make a small point.

A lot of people sit in front of their CPC, load up a game and play to their hearts content, hour after hour.

Three out of four people who own a CPC do not apperciate how much time, money and hard work has gone into the keyboard and (green screen) moniter in front of them.

We all owe our gratitude and thanks to the people who built these wonderful machines, especially Alan Sugar.

He was left at one stage of the production, unknowing to himself that he was in charge of proceedings, but Alan and his 'Sugar Drive' held onto the fort until people like Roland Perry and Mark Eric-Jones came to relieve Alan from the situation.

If Alan Sugar and other people like Roland Perry and Mark Eric-Jones did not contribute to the production of the CPC 464 and 664, then in my personal view I think that all 464 and 664 owners would now own sh***y Spectrums and cr***y Commodores as well as 16-bit computers.

Thank you Alan Sugar, for everything

Simon Aling
Thornton Heath, Surrey

AA: *We're lost for words Simon. Alan Sugar certainly did the world a great service when he brought out the CPC, but it seems fair to assume he didn't do too badly out of the deal himself.*

●Nearly a STOSser

I'm writting to you in order to vent a lot of anger... rant, rave, rant, rave, rant and rave. There, now that's done I can tell you this. I love my CPC, which I have had for years now, but recently I tried to sell it (horror on horror) and my parents stopped me (much to my delight). The reason was I wanted to get an Atari ST because my friend had one and with it you can create games on programs such as *STOS* and the *Shoot-em-up Construction Kit*. This was the temptation. Where is all this leading? Well could you tell me if there are any plans for such programs on the CPC and if not then could you suggest to everyone you know that it would be a good idea,

Yours wantingquitebadlytomakeagamingly.

Jez Becker
Weybridge, Surrey

PS I count four or five mistakes in this letter – what about you?

AA: *If you're after a games creation package, take a look at Pandora (reviewed AA47). Incidentally, we don't know about four or five mistakes, Jez, only one big one – wanting to sell your CPC!*



●Easy way out

Why the heck can't software programmers include an option of additional (or infinite) lives so that we at least can see what the other screens or levels look like? After all, we want to cheat a bit. I wouldn't be the least surprised if there were some game levels which nobody has ever reached, even the programmer or hackers.

Mike Baker
Chesterfield

AA: *No matter how hard the game, we doubt there are screens so tough to get to that even the programmers haven't seen them, Mike...*

As for incorporating built-in cheat modes, opinions vary. Some would say it just takes away the challenge.

●Off colour

I was playing on my 464 the other day with a friend, when he moved

the keyboard and a strange thing happened. All the colours on my monitor went funny. Red colours went black, white colours blue, yellow colours green etc. Then, when my mate moved the keyboard back, all the correct colours came back again! I have since found that this happens whenever my keyboard is placed at certain angles and distances to my monitor. Can you explain this strange phenomenon? Is my computer malfunctioning? Or is my colour moniter going green, (I mean turning into a green screen moniter – not going environmental friendly!)?

And this may sound absurd, but does hoovering your computer damage it in any way?

Keep up the good work on the magazine.

Michael Dempsey
Sittingbourne, Kent

***AA:** Well Michael, we're not too sure about why your monitor's colours are changing – unless you've got a dicky monitor lead – but we can state categorically that unless you're using the Acme 600hp Turbodeluxe industrial vacuum cleaner (which will actually suck the lettering off the keys), your CPC isn't in too much danger from the housework.*

●Alternative venue

Here are a few interesting facts:-

● In 1986 I bought an Amstrad CPC 464

● In 1987 I bought an Atari ST

● In 1989 I sold my Atari ST. Why bother spending £25 on a piece of software? The games are more like graphics demos because there is no gameplay. Disk swapping is also a problem, with some games taking five disks.

So what have I done that's so interesting? I have organised a computer show – *The 8-bit Micro Show*. For just 75p entrance per person you receive free gifts, free entry into a draw to win a computer and of course the chance to pick up loads of bargain software and hardware.

The show is to be held on 26th November in Tamworth Arts Centre and bookings can be made by sending an SAE to D. Betts with cheques/po's enclosed. For this you will receive maps and further information.

Unlike a yuppie 16-bit show you will be able to try out the games on show (some serious software too). There will also be many companies holding stands (the 8-bit micro will never die, increased CPC sales have proved so).

D Betts
Tamworth, Staffs.

***AA:** Sounds good to us. (Good enough for a free plug, anyway.)*

●Discologie – un upgrade

On a visit to France in the summer, I decided to upgrade *Discology* from my English version 3.3 to the latest French version (Siren software were not offering an upgrade). I sent off a cheque (French) to Meridian Informatique and received the latest version (5.1) within a week. It contained a smart properly printed manual and the 'online' help was not complete. This version is excellent with several new functions in the copier and explorrer (mainly technical). Well worth the 100FF as it includes full online help for each module. If you have a reasonable knowledge of French, translation is simple enpough and technical jargon can be found in a good French-English dictionary.

If you ever wondered what the two letters after each sector meant then I enclose a list for v3.3 v5.1 also has a track messages as well as sector messages.

/CM – Control Mark – Sector is erased

/DE – Data Error – Sector provokes drive error (track format size different from sector size)

/DD – Data Error in Data field – Sector contains data and gives incorrect CRC

/FB – Filler Byte – Sectors consist of identical bytes

/HD – Head Address – Sector contains an error on the side number of the ID

/WC – Wrong Cylinder – Sector contains an error on the track number of the ID

/ND – No Data – Sector empty with a normal sector ID or a sector with an erased ID at the time of formetting

/SS – Substitution Sector – it explains itself.

Version 5.1 has many more of these two letter messages as well as the 3 letter messages. For those interested in upgrading then send a cheque for French Francs for 135FF (check the price first, the extra 35FF is for p&p outside France) to Meridien Informatique, 5/7 La Canabiere 13001 Marseilles France, and their phone number is 01033 91 94 15 53.

I hope this helps people a lot. I will be happy to write the letter in French for anyone who is interested or to make a phone call on their behalf.

Julian Sinclair
London

***AA:** Thanks for that info, Julian.*

●Big down under

Wow!!!!! I can't believe that I am writing to you at last. Ever since I have had my Amstrad CPC 6128 computer I have been trying to obtain a second-hand copy of your wonderful magazine. You see, my mum won't allow me to buy magazines because they are too expensive. Even though your magazine is worth it, it isn't fair that here in Australia we are expected to pay $6.00 for *Amstrad Action* and only $3.20 foryour rival magazine when they both cost the same in England!

Anyway, I have had the urge to let all of your 'Pommy' readers know that us 'Aussie' Amstrad CPC owners are not having a very easy time. When the CPC was first introduced it was heralded as the new generation in computers (that was 2 years ago). Now the humble old CPC is considered as the same category as the OLD Commodore Vic-20! Now I have had enough, for instance, here in Adelaide there are only two shops that stock Amstrads. Not one bulletin board contains CPC software and everyone thinks they are rubbish!

Because of this I do not have any programs (except this Word Processor that I typed out of a magazine 3 years ago), because the few that are around are just too expensive.

Anyway, I am grateful for my Amstrad CPC 6128 and my printer as I could not do without them. Homework is 100 times faster with a word processor. Oh well! Perhaps one day I will come home from a second-hand computer shop with a bundle of Amstrad Action magazines and maybe my first game or utility.

Thank you *Amstrad Action*. I really enjoy reasding your magazine at the newsagents stand every month or so.

Robert Taylor
Para Hills West, South Australia

***AA:** My word, you have got it rough over there, haven't you! That A$6.00 is pretty steep, but all we can say is that "you get what you pay for".*

As for going down to the newsagents to read AA every month, we really don't think that's a very good idea – you're newsagent can't exactly be thrilled.

Which is why, Robert, we're sending you a free 12-month subscription.



● The Aussies spurn the CPC, according to Robert Taylor. They must be out of their trees...! (*You're fired – ed*)

BROADLEY SPEAKING



Oh Dear, Emma Broadley has had some mail, and it certainly isn't from an ardent admirer. MIKE WHEELER dons his gloves, puts in his gumshield and climbs in the ring...

Okay lady you've pushed your luck just a little bit too far this time. I've got a few things I have got to get off my chest. (Don't even think about calling me names for that one). Firstly and most simply, just who the hell do you think you are? Are you trying to express a complete view of women in general, or just you and a little posse of friends out to slag off anything with a picture of a pretty lady in it?

Yes you've guessed it, (congratulations, you used your brain instead of your mouth). I am pretty annoyed about your sex and violence statements. Don't get me wrong, I am perfectly in agreement with the reduction in violence, but your column about sex is just complete b****cks.

Sport for all?

In your words "...when so many people are exposed to the *Sport* every week..." – oh, so are we to assume that newspaper stands, WH Smith etc leave the papers open on the shelves? No I think not.

And do people buy the *Sport*, open it at the center pages in the computer shop and force children to take in the sight? No. Why don't you think about what you are saying? *Nobody* makes you buy the *Sport*, *Penthouse*, etc, *nobody*!

Exploiting females? Wouldn't you agree that women as well as men have a brain inside their head? Do the *Sport* have press gangs which they use to round up attractive women and force them to remove their clothes and smile? *No.* The women do it because they want to, okay? Can you understand that? They want to. Most of these ladies (yes they are still ladies) are attractive enough to work as models alone, without posing nude.

To quote you again, "The *Sport* finds its way into thousands of homes where children can see it". Oh sure! In come our beloved press gang again, breaking into houses and strategically placing the paper on the breakfast table for the kids to see in the morning. Actually no, I don't think so at all. Anybody

> "...your column about sex is just complete b****cks!"

who buys the *Sport* isn't going to begin showing its contents nonchalently to minors – or am I uneducated in these blindingly obvious facts? If so please enlighten me.

No I haven't finished yet. You find such aforementioned publications degrading? Well let's just think who is degrading you. I don't think the people who buy them are physically or mentally degrading you. Nor the producers or printers. I'll tell you. Without the people who pose for things in the first place, there would be no degradation. If they felt that strongly about 'exploitation' they wouldn't do it. So basically, it is women degrading women, wouldn't you agree?

Violent tendencies

You are against violence in computer games? Fair enough, so I assume you are against other forms of uncontrolled violence? (Controlled meaning Boxing, Wrestling etc.) I quote you once more – "If the fat creep who owns it [the *Sport*] were severly beaten up I wouldn't mind a bit" Hmm ,I think that says it all. As I said before, Engage your brain before opening your mouth will you? "The staff of this ragshould be publicly flogged and all their possessions burnt" *That* really gets up my nose. What have you got against the graphic artist, printers etc? Just tell me how they have hurt you and in what way they deserve to be publicly flogged? If that isn't unnecessary violence in your eyes then take yourself down to your local psychiatric hospital and recite your views.

Pornographic? *Ha!*- don't make me laugh. Are you telling the world that an attractive lady who is fortunate enough to possess a great body and decides to show off a little – just the top half mind you – creates pornographic material? My dear lady, forgive me for making assumptions but you have a *lot* to learn.

To end on a lighter note, as I am not a completely sex mad, arrogant person, I think that your piece on copyright was brilliant. The letter to end all backing-up arguments. Well done. All in all, your column makes a good read, just steer clear of trying to end the sex argument that we all know about and love to hate.

Thank you for your time and I look forward to seeing your reply.

A question of time

We, the editorial team, wish to point out that the views expressed by Ms Broadley do not necessarily correspond with our own. Not that we're about to tell her that to her face, of course. In the event that you disagree with something she says, drop us a line and we'll either print it or pass it on. Anything, as long as it's got somebody else's name at the bottom...

Write to:

Broadley Brickbats, Amstrad Action, 4 Queen Street, Bath BA1 1EJ.

In the meantime, we're just off to the air raid shelter to wait it for the moment Emma reads what Mike Wheeler's got to say...

It's a disgrace!

I don't know what Steve thinks he's playing at, but he was on the phone to me earlier this week telling me that I wouldn't get my usual whole page this issue. Whatever the reason, I think he's very unwise. For a start, from what my friends tell me I'm now sure this is one of the most popular pages in the magazine. Of course, I can't take all the credit for that, as I'm simply stating out loud what everybody knows is simply common sense anyway. "Still," my colleagues say, "It's about time" that somebody stood up and was counted."

Which is why I'm a bit miffed at Steve for cutting down on my space this month. This is the month, after all, when Dixons announces it's going to stop selling the CPC. How absurd can you get! The CPC is without a doubt the best 8-bit micro you can buy, and Dixons is dropping it! Mind you, with they heavy discounting it's using to clear its stocks there's going to be a stampede. Perhaps the sales boom will be enough to make Dixons think again?

Of course, all this would never have happened if Amstrad itself had been prepared to cut the price of the CPC. Then, instead of being just one of the 8-bit contenders, the CPC would have wiped out the Spectrum and Commodore 64 completely.. It's almost as if Amstrad has a deathwish as far as the CPC is concerned. It launches the finest machine on the market and lets it suffocate slowly by offering no discounting, no promotion and no back-up.

YOU CAN RUN BUT YOU CAN'T HIDE FROM

THE UNTOUCHABLES™



Mastering MIDI

So how do you play music on your CPC? What instruments do you need? What's a sequencer – and what is this *MIDI* lark anyway? JAMES PINTO is the man with all the answers...

The world of MIDI is like a closed book to outsiders. Here you are, bombarded with jargon, technobabble and musical mumbo-jumbo, and no clue as to what it all means.

Well you'll be pleased to hear that making music the MIDI way is actually quite simple. The principle is basically that of translating notes produced by a musical instrument into a form that can be understood and manipulated by a computer.

Of course, with the huge variety of musical instruments – not to mention computers – available, some standard had to be hit upon to allow them all to be able to send data to each other. MIDI (Musical Instrument Digital Interface) is that standard. Effectively, any MIDI-compatible instrument will produce music data that any MIDI-compatible computer can understand.

Play it again

Once you have your MIDI data, you can then edit it via a "sequencer". This is a device that records MIDI data and then replays it in much the same way as a tape recorder (minus the tape). A sequencer can come in either software or hardware form, though nowadays most musicians use software-based sequencers written specifically for their own machines.

Sequencers break down into two further categories – real-time and step-time varieties. A real-time sequencer will play back your music exactly as you recorded it – including wrong notes! It also records all those awkward silences at the start of your performances when you realise you've trodden on your plectrum...

Although you can edit performance parameters such as the playback volume, aftertouch values and velocity sensitivity, you can't actually edit the notes. As you can imagine, to get good results with a real-time sequencer you need to be able to play pretty well in the first place.

A step-time sequencer is quite different. It allows you to enter notes one by one, including rests (when no note is played). It works to the same principal as any CPC music editor (not necessarily MIDI-compatible) such as the *Music System* or the *Micro Music Creator*, in that you enter each note manually for each channel (MIDI software has 16 channels – you can assign a different instrument to each one for an "orchestrated" effect).

Step time sequencers. They enable you to enter your compositions using a MIDI keyboard, and then correct any bum notes or errors using a note editor, where you enter notes in MIDI data format. The advantage of this is that you can produce compositions which are physically impossible to play (such as incredibly fast arpeggios and scales), and the music you produce is very exact because of the greater precision you can exercise versus that you get with a real-time sequencer.

The principle is employed by groups such as the Pet Shop Boys, making use of slightly more advanced tools such as a Fairlight. The result is that their music tends to follow logical sequences. If you listen to some of their earlier songs this logic is very noticeable: listen to how the music builds up in patterns. This is definitely a great advantage musically, and until quite recently such control was available only to Atari ST or Apple Macintosh users. To know that such packages were only available on the more expensive computers was enough to break your heart!

But lo and behold! Now you can do such wondrous things on your CPC. A few months ago Foundation Software released its Multi-Track Step Time MIDI Sequencer (try saying that in a hurry!) – the only package of its type available for the CPC.

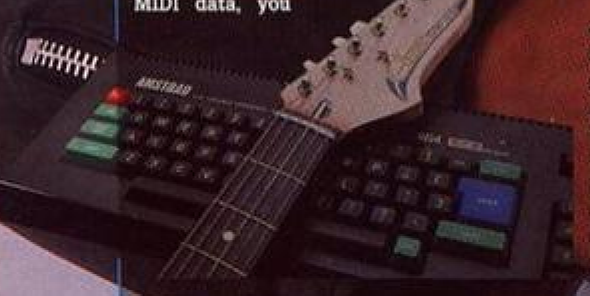
Interface

Although some computers will connect directly to a MIDI instrument (the Atari ST for example), others – including the CPC – require a special MIDI interface. To compose your own music, then, you will need:

1) Your CPC (get away!)
2) A MIDI instrument
3) A MIDI interface

MIDI interfaces for the CPC are available from a number of sources. See the separate panel for a run-down of the best.

To make life easier for the budding musician, DHCP and EMR offer MIDI interfaces which include sequencing software as part of the package. These are real time sequencers, however, so are somewhat limiting. Fortunately, Foundation's step-time sequencer will run with any of these interfaces, opening up a whole new world for the CPC musician.



NEXT MONTH: The complete guide to buying the right keyboard.

MIDI interfaces – the choice

INTERFACE	PRICE	SUPPLIER
RAM Music Machine	£49.99 (tape) £59.99 (disk)	Datel Electronics
DHCP Interface (includes 8-track sequencer software on disk – 8-track sequencer software also available separately, £34.95 on disk – can be configured to work with the *Music Machine* if required.)	£104.90	DHCP Electronics
EMR Miditrack performer (with sequencing software on tape and disk)	£129. 85	Electro Music Research

If you own just one keyboard and you want to use a software-based sequencer such as DHCP's you will need two MIDI cables. You can get these from any music shop for about £2 each. (On a practical note, any MIDI device will always have at least two sockets on it. These are MIDI IN and MIDI OUT. Remember you always connect IN to OUT, never OUT to OUT or IN to IN.)

The Foundation Step-Time Sequencer

Foundation Step Tim Sequencer ● £34.95 disk ● all CPCs ● Foundation Software (0252) 543945

FSTS will run on any CPC as long as it has a disk drive connected. But this is not so easy for 464 owners, for in order to use the software you need to have a MIDI interface and the disk drive plugged into the expansion port on your CPC at the same time. Again we have the same old problem concerning the DDI-1 not having a through connector to enable the user to plug further peripherals into the CPC.

Fortunately, there are two solutions, depending on which interface you own. The EMR interface is available either with or without a through connector – definitely a life-saver. Any 464 disk drive owners buying Miditrack Performer must remember to state that they want the interface with a through connector (not to be confused with MIDI THRU).

If you own either the Music Machine or the DHCP interface, contact DHCP (0440 61207) for a special cable, costing about a tenner, that enables you to plug the disk drive in, irrespective of what other peripherals are currently connected. Alternatively, electronics buffs can make their own cable by connecting three 50-way edge connectors and two "Reversiboards" to a length of IDC ribbon cable. The IDC cable is available from most Electronics suppliers but the "Reversiboards" are only available from Maplin (part number GD37S). The total cost is about £9 (hardly an earth-shattering saving over DCHP's ready-made item). Contact Maplin for details on ✆ (0702) 552911.

The Foundation sequencer allows the user to compose and arrange songs easily using any MIDI-compatible keyboard. The package is intended for use with a Yamaha PSS680 keyboard, but works quite happily with any MIDI synthesiser, though you might have to change the default MIDI channel settings.

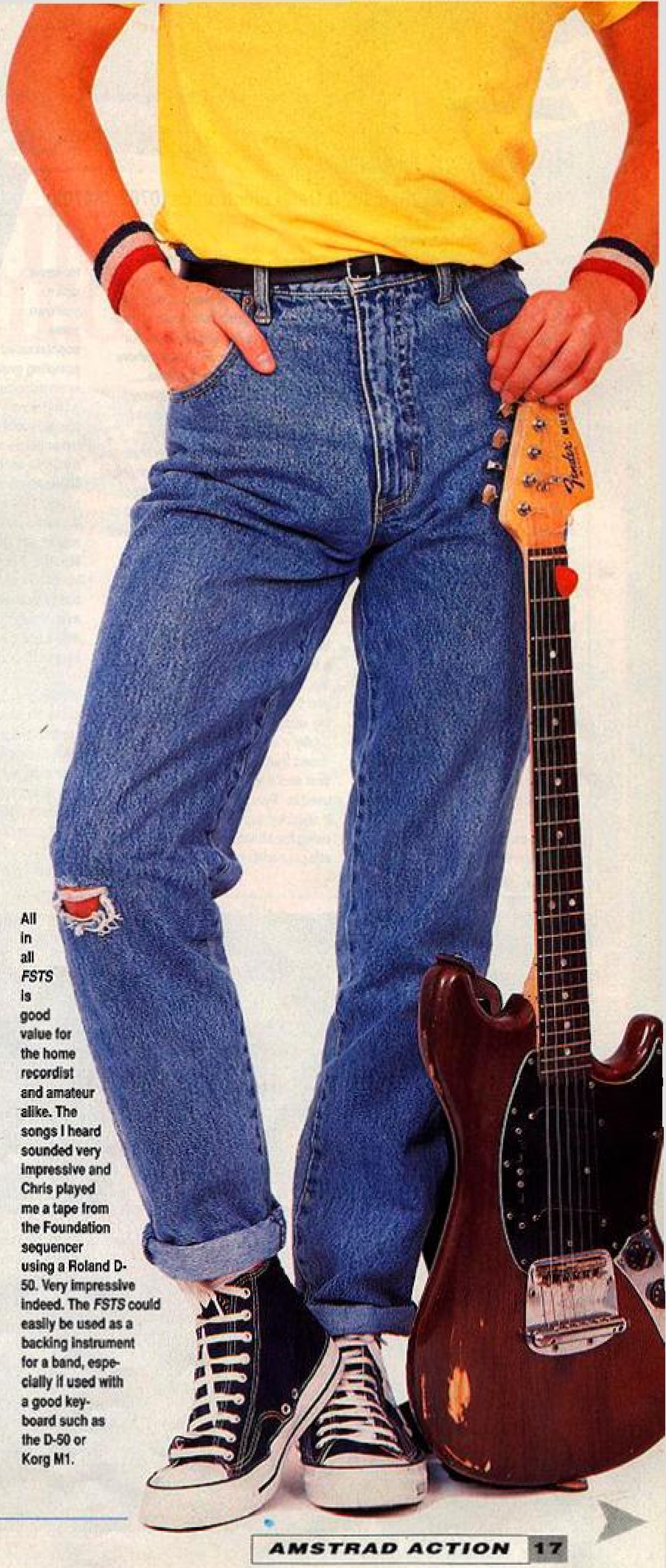
Up to eight different voices (notes) and four percussion sounds can be played simultaneously, each with adjustable volume and full 7 octave note range. Notes are entered using the CPC keyboard or from the synthesiser using a Pattern Editor. Each pattern can be transposed up or down or copied. Drum patterns can also be copied.

Once you have written a few patterns, you can move on to the Song Editor. This is where you decide in what order to play the patterns. For example the start of your sequence could be pattern 1, 2, 3, 4, 1, 1, 2, 4 and so on. Patterns can be played in any order and up to 99 patterns are available.

With your song written you can now arrange the instruments using the MIDI/Voices menu. From here you can assign each voice to any one of the 16 MIDI channels. You can also assign a sound to each voice. For example Track 1: synth bass, Track 2: strings, and so on for the other tracks.

The *FSTS* is extremely easy to use. Although the display can initially seem rather daunting, you soon get the hang of it. Chris Owen of Foundation demonstrated the sequencer for me, and after about 15 minutes I had composed a short song. It didn't sound too bad, either, using Chris's PSS680.

All in all *FSTS* is good value for the home recordist and amateur alike. The songs I heard sounded very impressive and Chris played me a tape from the Foundation sequencer using a Roland D-50. Very impressive indeed. The *FSTS* could easily be used as a backing instrument for a band, especially if used with a good keyboard such as the D-50 or Korg M1.



RAM Music Machine

£49.99 (cass) £59.99 (disk) ● Datel Electronics (0782 744707)



The advertisement bills the Music Machine as "probably the most exciting music add-on available for any computer." Any computer? Well, for the CPC maybe.

Setting up is quick and simple, and even the beginner will have no problems connecting everything together thanks to the clear and simple descriptions given in the manual. The only annoyance is that the MIDI ports on the Music Machine are not labelled as they are on the EMR or DHCP interfaces. It is slightly aggravating having to keep referring to the diagram until you memorise which is which.

The well-presented main menu is where you access the various modules of the system. If you have a MIDI keyboard the first option to go for is – you guessed it – MIDI! From here you define which of the 16 MIDI channels receive and transmit data. You can play either your keyboard's own sounds, any resident sample or even the Music Machine pre-sampled drum sounds. You can also send the drum or music output to either the earphone or phono sockets of the Music Machine – or if you're really desperate, you can direct the output to the CPC's internal speaker!

Taking a sample

No doubt many people who have purchased, or are interested in buying, the Music Machine have been attracted by its sampling capabilities. For those of you who don't know (where have you been for the past five years?), a sampler is an instrument which allows you to capture a sound using a microphone or any other sound source and then replay that sound at any pitch using a keyboard. The more expensive samplers, such as the E-mu Emulators 2 and 3 and of course the Fairlight series and indeed many cheaper samplers (the Casio FZ-1, for instance), also allow extensive editing of these captured sounds ("samples").

Well, the Music Machine may not be in the same league as these, but at a fraction of the cost it is quite capable. To give the Music Machine's sampler the ultimate test, I sorted through my sample library for some awesome, totally wicked sounds – and it reproduced them astoundingly well. The best was a snare drum similar to that used in "Beat 'dis" by Bomb the Bass. It sounded superb once I had edited it using the Music Machine's limited but effective editing facilities.

However, unless you own some sophisticated sampling gear, or an extremely good microphone, you'll never get as clear a sample as the Music Machine's built-in percussion sounds. Memory availability limits the duration/quality of any sampled sound, and the case of the Music Machine this maximum duration is an incredibly short 1.22 seconds! You're basically limited to sampling drums, even though some other instruments may come out OK, such as synth basses or brass punches.

Writing a masterpiece

Using the Music Machine to write compositions is like using a matchstick to play snooker. For a start the maximum number of notes you can play at once is two – and that's only if you have a MIDI keyboard.

In essence, the music editor is a basic step-time sequencer. Very basic. The drum editor is a different story. It works in the same way as the music editor, but the way you enter your drum patterns is similar to that on many professional drum machines. You can use any of the eight supplied samples as drum sounds, or you can sample your own. The drum sounds provided are cowbell, snare, hi-tom, lo-tom, open hi-hat, closed hi-hat and bass. They have been superbly sampled and the Music Machine's drum facilities are enough to recommend the unit on their own.

To conclude, the Music Machine is more of an enthusiast's plaything than a professional tool. That said, it is one of the cheapest MIDI interfaces around and considering what you get for the price it is a very good buy. Don't forget that DHCP's 8-track sequencer will also work with the Music Machine, as well as Foundation's sequencer.

EMR Miditrack Performer (0702) 335747
£49. 95 interface, £79. 90 (tape), £89. 90 (disk) software

The single main display on the Miditrack Performer has Save, Load, Delete Filename, Clear, Text, Arrange and Time Correct options – the last of these referring to the Performer's ability to tidy up a performance: if you can't get your timing right, the Performer will do it for you!

Total capacity is around 6,000 notes, though of course actual capacity depends on the information you need with each note. Performer can handle eight tracks in memory (rather than the 16 MIDI can cope with), but you can merge two or more tracks into one, so the limitation is not as severe as it first appears.

The system is easy to use, though the on-screen icons take some getting used to, and certainly when you compare it to what a Macintosh owner would have to fork out it's great value.

DHCP Interface and 8-track Sequencer
£69. 95 interface, £104. 90 (with software on disk) (0440 61207)

The basic sequencer was reviewed in AA33, and although Pat McDonald gave it a thumbs-up, he remarked on the fact that the sequencer lacked certain features. Soon afterwards, DHCP released an updated version which now includes features previously only found on sequencers for more expensive computers.

Firstly, the sequencer now quantises (a dreadful term meaning to correct timing errors) to 24ths, instead of 16ths of a second. And there is now an incredibly helpful MIDI clock to synchronise drum machines and other MIDI devices. You can transpose any track down or up by two octaves. And also introduced is selective record to allow you to record MIDI data from one specific MIDI channel.

Presentation is superb, features being set out in a logical, clear manner and very easy to use. The updated version offers all the features you need to record some really good compositions. Of course the better your keyboard or expander the better your results will be. The demo files on the disk were written using a Roland MT32 and Roland Juno.

The DHCP sequencer is ideal for the amateur and professional alike. I would certainly use it in the studio together with say a D-50 or an M1. Incidentally, the sequencer is also available to work with the Music Machine. All in all, an efficient, easy-to-use, good value sequencer. Recommended.



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HELPLINE

NEW ENTRIES

Feeling helpful? Just send your name, address, phone number (say if you don't want it printed) and subjects on which you're offering help to: *Helpline*, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ. *Please write on a postcard or the back of a stuck down envelope* and keep it short or you won't get in (or you'll get cut to 'loadsagames').

If you want help contact the appropriate Helpliner – not us. By post include a self-addressed, stamped envelope for the reply – or you won't get one. And phone only in decent hours!

Piracy is not welcome: don't try it, you'll get booted off. Keep it legal. And if you receive SAE's, for heaven's sake return them with some acknowledgement. If you want to come off *Helpline* just write and say so.

All comments are the editor's.

I will provide help on all aspects of BASIC and machine code, hacking and breaking protection loader, firmware, multifaces, debug programs and will write ones for you on request.
Andrew Price, 48 Lockington Crescent, Dunstable, Beds.

Penpals wanted for 16 yr old. 15 + preffered, male or female. AA15 for sale!
Paul Graves, 39 Guilton, Ash, Canterbury, Kent CT3 2HL

Help on any aspect of BASIC programming, especially presentation. Will de-protect most BASIC programs. Send 10p for PD catalogue over 40 programs. All PD programs welcomed with open cassette deck. Tape only.
Richard Fairhurst, 2 Trent Road, Oakham, Rutland LE15 6HF

Anyone got Rastan for the 6128 I could borrow, swap or buy, disk or tape!
Jamie Hastings, 32 Maitland Road, Woodthorpe, Notts NG5 4GT

Wanted: map of Head Over Heels from AA 22, Spellbound poke AA28, Jackle and Wide poke in AA 26 and the Pyjamarama poke from AA5.
J Gillespie, 16 Birdie Close, Kibworth, Beauchamp, Leics.

Penpal wanted betweenthe age of 11 and 14 who would like to swap games. All letters answered.
Manish Tankaria, 67 Mellitus Street, East Acton, London W12 0AV

Feeling helpful? Please send me your Multiface pokes. Send sae if you want me to send you some back.
Jon Pearson, 44 Lavina Rd, Gosport, Hants PO12 3PA

Help wanted for Batman the Caped Crusader – A Bird in the Hand.
Gavin Wilson, Village Stores, Church St., Minster, Ramsgate, Kent CT12 4BX

Help with: Multiface 2, FD1, DMP2000, DK'Tronics Speech ROM, Tasword, AA Studio, Cherry Paint, BASIC programming, simple hardware problems, customising computers etc, making joysticks, most games. Will also print listings and screens 5p a page.
David Carter, Ruxley House, 28 Mt Hermon Rd, Woking, Surrey GU22 7UH

Sounds digitised using MMC in exchange for PD software. Write first , disk only.
Ian Portman, 18 Spinney Grove, Tupsley, Hereford, HR1 14Y

Software help. Need help with playing or programming games? Also cheats, and I can send you 'Buying the best' games list. Include and sae and 20p per help (list free). Money back if not satisfied.
Lee Harbert, 42 Rivermead Road, Rosehill, Oxford OX4 4UE

Help! I need a cheat or poke for Dizzy. Also I have cheats, pokes and tips for tonsagames. Send a list of games you want cheated on with an sae.
AJ The Hacker, 21 Wayside, Marston Green, Birmingham, B37 7AY

Help wanted on SDC delays, Platoon and Football Director II. Also anyone who likes football games write to me.
Len James, 37 Northway Lymm, Cheshire WA13 9AT

Penpal wanted to share tips and pokes.
Christopher Stephens, 18 Manor Court, Swindon Village, Cheltenham, Glos GL51 9SD

Pokes, tips, maps, type-ins – anything. All needed for a fanzine. Or anyone who has produced a fanzine and can help please do so.
Simon Williams, 24 Chalcot Drive, Hednesaford, Staffs WS12 4SF

Wanted: someone to show me how to use Poke Easy Plus. I can offer help on loadsagames including Football Director (Inf cash). If you're stuck in Div 4 and getting nowhere fast send me your saved game tape and team name with an sae and you'll never worry again.Also wanted any penpals (prefer female but don't really mind) age 14-19 who can show me how to use Quill or GAC. Must like football.
Jason Cass, 16 Glastonbury Hse, Ferndale Road, Brixton, London SW9 8AY

Has anyone got a copy of Bouldetdash They're prepared to sell?
Alison Stevens, 24 Belvedre Ave. Beeston, Leeds LS11 7EB

Help! Does anybody know of Lombard RAC Rally for the 464 , or Grand Prix Circuit?
Daniel Bourn, 41 Horsham Ave. London N12 9BO

I have need for quite a few type-ins from AAs 1-36. Anybody who has done a lot of them and is prepared to spend some time putting them on tape for me please send me your name and address. I will supply the cassetes and I have a list of the programs I want (mostly fun graphics).
G Connolly, 30 Cypress Gardens, Cartronrey, Athlone, Co. Westmeath, Ireland.

Codes desperately wanted for: Army Moves, Freddy Hardest, Game Over and Titanic. Has anyone got a poke for Eagles Nest? How many levels has Crazy Cars II got?
A Mack, Bryher Cottage, 86 High Street, Dilton Marsh, Westbury, Wilts BA13 4DZ

Lots and lots of games. Send sae.
Sunny Chan, 56 Edward German Drive, Whitchuch, Shropshire SY13 1TL

Lots of Multiface and tape pokes. Also some maps. Listings printed 10p per page, send tape (no disks). Tape to tape, anything only 25p. Money back if not copied. Please mark all letters AA Helpline and enclose an sae.
J Burton, 8 Delahays Drive, Hale, Altrincham, Chesire WA15 8DP

Over 200 pokes and maps including 150 multiface cheats. Send sae for details, also Cybernoid II redesigned. Send 20p including blank tape if you want it already typed in.
J. Bainton, 2 Pickwick Caravan Park, Pickwick, Corsham, Wiltshire SN13 0JO

Elite wanted for the 6128. Will pay a bit. Penpal also wanted.
Ben ☎ 0732 353726

Penpal wanted aged 12-14. Issues 1-18 wanted. Anyone selling Sabatouer II, Livingstone, Sacred Armour, Stormbringer, Pyjamarama, any adventures and a Multiface 2. Pay reasonable prices.
Stephen Lumb, 14 Higheels Road, Mixenden, Halifax HX2 8TF ☎ 0422 246353

Penpals wanted to swap games and tips. I have a 6128 and a Multiface 2+. I also need help on transferring; Robocop, Dragon Ninja to disk.
Patrick, 92 Lennox Road, Portsmouth, Todmorden, Lancs, OL14 8QD ☎ 0706 815467

Loadsagames for sale send an sae for list to:-
Scott Giddins 31 Lulworth Walk, Merry Hill, Wolverhampton WV4 4YS

BASIC programs written (price on application). BASIC programs debugged 50p +sae (money back if I can't do it). Listings 10p a page and letters in human readable form printed (tape only).
Gareth Payne, Little Thatch, The Cottges, Fenny Bridges, Near Hamilton, Devon EX14 0BJ

Stormbringer, Knight Tyme, The Great Escape ,Trapdoor, Neverending Story. Help on the Colour of magic, Spellbound, Robin of Sherwood, Finders Keepers.
Alex Johnson, 9 Riverdell Close, Chertsey, Surrey KT16 9JW

Looking for help form anyone in setting up a public domain software library.
Des Daly, Amber Pines, Ammount, Glounthaune, Cork, Ireland. ☎ 353367

Anyone tell me how to transfer Manic Miner (464 only) from tape to disk and to run on 6128? I have M/F2. Will pay.
David Mitchell, 5 Fern Way, Jaywick Sands, Clacton on Sea, Essex CO15 2JB ☎ 0255 430485

Help required urgently on Captain Blood! Can find Izwal, Varex, Ulves, Migrax and pop but nobody else.
Piero Serra, Park Crescent, 149 Colwyn road, Northhampton NN1 3PU

Penpal wanted to swap tape games and share tips and pokes. I have a 464.
Nagina Begum, 90 Glebe Street, Walsall, West Midlands WS1 3NU

We must be off our trolleys!

Not content with bringing you the absolutely mega *AA* Fourth Birthday competition last month, we're now giving one lucky reader the chance to scoop up more CPC goodies than he or she can carry! Read on...

Imagine you're in the Alexandra Palace, London. All around you are stands bulging with software, peripherals and other goodies. You're clasping the handle of a huge, empty shopping trolley with one hand and a map of the exhibitors' stands with the other. Somewhere a voice shouts "GO!", and suddenly you've got a whole five minutes to cram that shopping trolley with everything you've ever wanted for your CPC – free!

Sounds like a dream? Well, courtesy of *Amstrad Action* and Database, that dream is about to become a reality for one lucky competition winner.

The competition coincides with the *Computer Shopper* Show, to be held in the Great Hall, Alexandra Palace, London from November 24th-26th. Also featuring "The Wonderful World of Amstrad", the show promises to be the UK's largest event for Amstrad owners, with over 100 of the 250 stands selling Amstrad products.

The lucky winner will make his or her trolley run half an hour before the show opens (10am on November 22nd). We do know that some of the CPC world's most illustrious suppliers will have their wares up and ready for the grabbing – the only thing we don't know is whether the trolley wheels will be able to take the weight!

Just so you get the idea, here's a list of all the manufacturers taking part in the competition:

A & S Distribution ● A1 Computer Supplies ● Amstrad ● B Bytes ● Caspell Computer Services ● Computer Manuals ● Computer Store ● Database Software ● Direct Disc Supplies ● Eclipse Computer Supplies ● Escroe ● Graft Vent ● HSV Computer Services ● Headline Communications ● Hi Soft ● In Store Marketing ● Kador ● Kempston Data ● Little Office ● MCD Software ● MD Office Supplies ● Main Media ● Manor Court Supplies ● Margin Maker ● Megaland ● Minerva Software ● Reflex ● Rombo Productions ● Tynesoft ● Westoning

– phew!

WHAT YOU HAVE TO DO

● Feel up to answering a few really tricky questions? OK, here goes...

1 Where is London's Alexandra Palace?
a) London
b) Tokyo
c) Macclesfield

2 What has four wheels, a handle for pushing it with and is made of wire?
a) The Thames Barrier
b) An open-top Skoda
c) A shopping trolley

3 Name the disgraced Canadian 100m sprint record-holder. Was it:
a) Ben Johnson
b) John Benson
c) Al Jolson

Jot down the correct answers on a postcard and send it to **Shopper Competition, Amstrad Action, 4 Queen Street, Bath BA1 1EJ.** Those entries have to be in by October 31st, so there's no time to waste. In the meantime, you'd better dig out those old running shoes and start training...

RULES AND CONDITIONS

1 Each winner will be limited to one predetermined item per stand – either software or peripherals – but actual machines will not be made available.

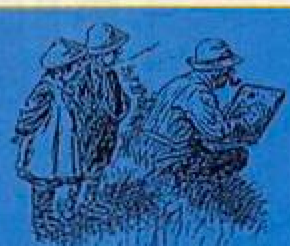
2 All entries must reach us by 31st October 1989.

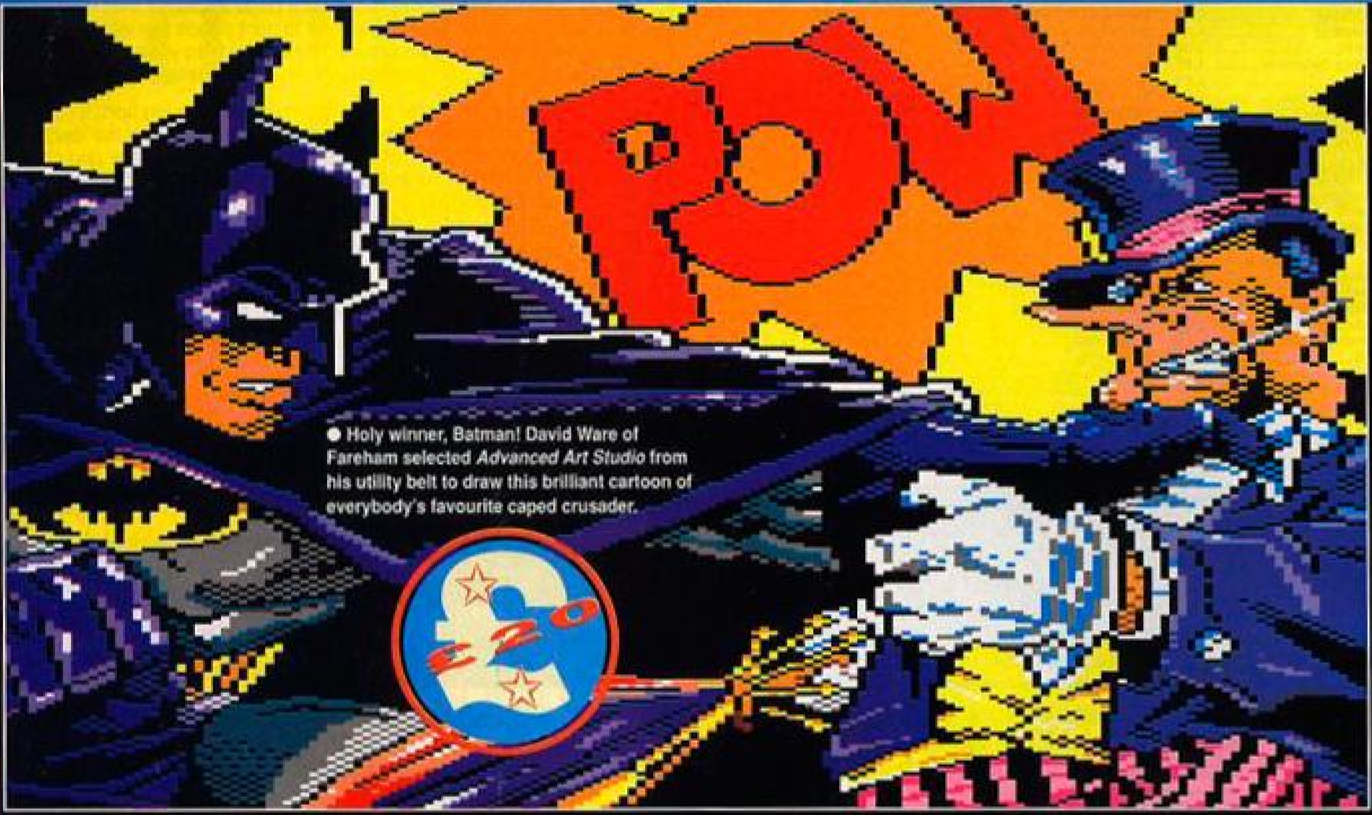
3 The judges' decision is final and no correspondence will be entered into.

4 Employees of Future Publishing or Database are not eligible for entry.

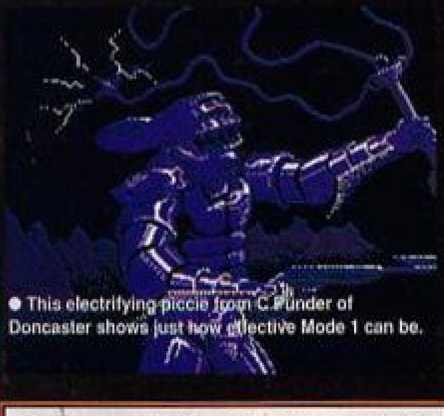


THE GALLERY





● Holy winner, Batman! David Ware of Fareham selected *Advanced Art Studio* from his utility belt to draw this brilliant cartoon of everybody's favourite caped crusader.



● This electrifying piccie from C Punder of Doncaster shows just how effective Mode 1 can be.



● This creepy alien face belongs to Aubrey Berwick of Liss.



● An excellent reproduction of the famous Hornet spacecraft drawn on *Advanced Art Studio* by Aubrey Berwick.

● Every month *Amstrad Action*'s Technical Editor is given a cheque for £20. Why? Because of his many hours of sterling service, unpaid overtime, selfless devotion to duty etc?

Well no. He has to give it away actually (ho ho) – probably to you. That's right. All you great CPC artists out there stand to win yourselves £20 *and* the eternal glory of having your pictures printed in *AA*.

So send those piccies in, together with some brief notes on the paint package and any special techniques you used.

(Don't forget enclose an SAE if you want your disk back.)

Pat McDonald's *The Look* is taking a breather this month, but AA's pixel professor will be back next time round with the next installment of his graphics extravaganza. In the meantime, keep sending in those pictures to:

Adam Waring,
AA Gallery
Future Publishing
4 Queen St
Bath BA1 1EJ



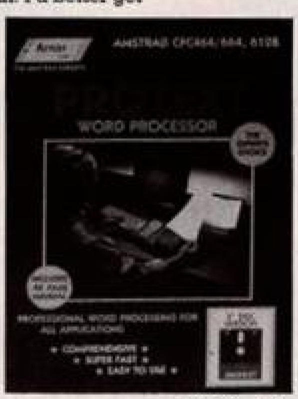
● These two cool dudes from *Forgotten Worlds* have been captured by the brush of Grainger Oliff, a cool dude from Corby.

Playing with *Protext*

or, How I Learned to Stop Worrying and Love [Ctrl]-[Y]. PETER CERESOLE begins a major three part series on customising *Protext*.

Games are boring. The only good game ever written for a computer was *3D Monster Maze* on the ZX-81. That one made you sweat with fear. The others are only fun for their programmers. But printer drivers – now *there's* red meat! Macros! Hex dumps at midnight! And the sense of triumph as the damn thing finally goes right.

I've had more fun with *Protext* than with any other hundred quid's worth. I'd better get this clear: I'm talking about *Protext*, *Promerge* and *Utopia* on ROM. They function seamlessly together, except for a few spare BASIC functions in *Utopia*. The fun comes in making it do just what you want. This isn't macho stuff, mixing it with the undocumented opcodes of the Z 80, Rambo with an LDIR. This is Wimp Programming, by and for wimps. There must be lots of us out there. And it starts the way I did – gently.



Startup

The first thing is that, even if you have *Protext* on ROM, which is the best place to have it, that's just the plain vanilla version. It may be better than any other CPC program in the Known Universe. Dammit, it *is* better. But it's not your very own.

The essence of fun (and practicality too) is to write a program of your own in BASIC (ugh!) that sets *Protext* up just the way you want it.

Call it "disk" as you would any start-up program. Then, if you have the right ROM on board, you just bung in the disk and go CTRL/ENTER. Disk runs. And this is how it goes (and if anything isn't dead obvious straight away, it's worth having a look with the manual open and the CPC switched on.) We'll be building up a fairly lengthy *Protext* ROM loader in this and in the two instalments to come.



At first there was just *Protext*, and there are plenty of little things you can do with the bare program. The first thing is to send the main printer control codes with single keystrokes. I never use the keypad as such, so all the function keys are fixed (see fig 1.1).

The bit of "disk" that does this is very simple **(Ctrl-X=CHR$(24))**:

```
16 KEY 0, CHR$(24)+"q"
18 KEY 1, CHR$(24)+"u"
20 KEY 2, CHR$(24)+"b"
22 KEY 3, CHR$(24)+"s"
24 KEY 4, CHR$(24)+"e"
26 KEY 5, CHR$(24)+"n"
28 KEY 6, CHR$(24)+"t"
30 KEY 7, CHR$(24)+"i"
32 KEY 8, CHR$(24)+"c"
34 KEY 9, CHR$(24)+"l"+chr$(24)+"r"
   (double width and height).
```

The sky's the limit – the shifted and Control states are all available. You can control as many codes as you care to put into your printer driver, for example to get accents the way you want to.

I sherl print zis ernly warnce

I need to do occasional French accents (if you see what I mean!), but I hate having to remember the weird key substitutions when you type "French," so I built them into the printer driver. Ctrl-X + "a" is acute, placed after the letter and sending (8+39) to the printer, which is backspace plus the accent. Similarly Ctrl-X + "x" is circumflex, sending (8+94), and grave is Ctrl-X + "g", (8+96). With some daisywheels, these codes are the only way to get accents printed.

When I had a Juki 6000, I built accents into the top three function keys, f7, f8 and f9. And then there are simple pleasures, like

>oc 27 65 6 15 27 83 1
>sm 9
>oc 27 65 6 15 27 83 1

This is really a printer trick, but *Protext* makes it so easy to mess about with printer codes that you experiment a lot. It works on any Epson compatible, and just sets the printer to half line spacing, then condensed print and subscripts. To get out of this mode, you can reset the printer, for example, with:

```
>oc 27 64.
>oc 28 64
>sm 5
>oc 27 120 1
```

(See Fig 1.2.)

But it may even (gasp) have an application...

How to get a CAT in a disk box

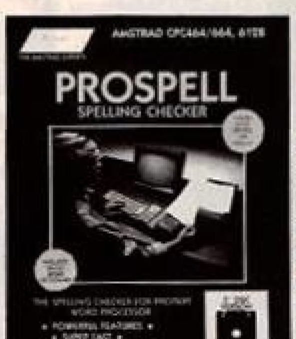
Somebody wanted to print a CAT that could fit into a disk box. I thought "Aha!" and even "Gotcha!" Into Tiny Print, and then a character dump (using a routine called PRINTON from Utopia) of the onscreen "CAT" will... not *quite* fit into a box. Ah.

This was a bit of a blow. Putting the printer into Elite made for a (tight) fit. But it was all terribly small. Time passed. And then I remembered mode 1. Mode 1 CATs in two columns, the right shape for a disk box. So this is how you put a CAT in a box:

Set Tiny Print (as above)
Print the file.
Mode 1
|PRINTON CAT
<<Disc box CAT>>

(See Fig 1.3.)

And that's it – perfect designer fit. The only reason that the blindingly obvious took me so long was that I always think of Mode 1 as being *Ladybird Book Three*, so I forget it exists. Mode 0 is *Janet and John*. James Joyce's *Ulysses*, though, was *definitely* written in mode 2.



Hires

There's more simple stuff that somehow makes life more fulfilling. The last line of my *Protext* BASIC loader goes like this:

INK 1,0:INK 0,26:BORDER26: | P,"opt 24": | P,"pr nec": | P

The first part proves that I am a Serious User. It produces black writing on a green screen, which gives higher apparent definition. This is because the eye can easily resolve the line structure of green letters on black, which is boring. But the black letters have no line structure, they're black all the way through. Away from the centre spot, the eye has much lower resolution, and sees the screen as a smooth green field. Bingo – higher res! Anyway, who writes in white on black except for school teachers and negative thinkers? The next bit suppresses the ruler (prettier) and switches off right-justify (ugh). Then it loads the printer driver and finally calls *Protext*.

Anyway, this was kid's stuff, fingerpaint-

ing by numbers. With *Promerge* all kinds of nice things become possible. It started after I read an article about customising *Protext*, and I realised that I could change some of the things that irritated me, like the fact that the only new ruler you can call up is the default, which is a drag. The legendary David Foster, who wrote the article, gave a sequence of codes to call down a line that has been stored above the top ruler of the document.

Full of inspiration, I wrote myself a sequence to copy whatever line the cursor is on, to that position above the first ruler line. This means I can make up a ruler line, get it looking right, and then pop it up there, and recall it with David's code. This is a macro (nice to know that) and the numbers are all in the manual, on page 51 in my copy.

Here first is the macro, to store any line now at the cursor position, up above the top ruler line. This assumes there are no markers set. I assigned it to Ctrl-f0. The line in the Basic loader goes:

CHR$(251)+CHR$(233)+CHR$(250)+CHR$(23 3)+CHR$(0)+"9"+CHR$(27)+ CHR$(237)+CHR$(234)+CHR$(11)+CHR$(0)+" 9"+CHR$(16)+CHR$(236)

What is happening is this:

[Ctrl-right, go to right end of line] [Shift-copy, set a marker] [Ctrl-left, go to other end of line] [Shift-copy] [Ctrl-@, put in a place marker, call it 9 in case there are others in use] [Ctrl-[, up to the top] [Ctrl-I, make a spare line] [Ctrl-Copy, copy the line up there] [Ctrl-K, get rid of the markers] [Ctrl-@ goto place marker 9] [Clr, clear the place marker] [Ctrl-return, down to the start of the next line].

Now for David's retrieval code. It assumes you are at the left end of a blank line to start with. I assigned it to Ctrl-R, which is normally set to copy the last ruler – which has proved to be of little use to me.

CHR$(11)+CHR$(0)+"9"+CHR$(27)+CHR$(23 3)+CHR$(251)+CHR$(233)+CHR$(0)+ "9"+CHR$(16)+CHR$(234)+CHR$(11)+CHR$(236)

[Ctrl-K, kill any markers] [Ctrl-@, put in place marker 9] [Ctrl-[] [Shift-Copy] [Ctrl-right] [Shift-Copy] [Ctrl-@, goto place marker 9] [Clr] [Ctrl-Copy] [Ctrl-K] [Ctrl-return].

David also suggested a save and continue macro. Small but perfectly coded:

CHR$(252)+"s"+CHR$(13)+CHR$(13) +CHR$(252)

Letter writer

A lot of the trouble in writing these things is in the clear-up, to leave things neatly the way they were. This was certainly true for the biggest macro, the one I use the most, and the one that was most fun to write.

Picture the scene: a letter to an Important Contact, their name on the top left of the document, yours (mine) on the top right. At the end of a long session cooking up just the right amount of flattery, tremendous care taken not to actually lie (or to split any infinitives) you spell-check ("Crikey, did I really type that?") and print.



And then.... what about the envelope? This is a touchy former dictator you're writing to. The postcode is endless. More stuff to type. Wouldn't it be nice if the address could be winkled out and set up in the second file, with all the margins just right for the envelope? Well... here it comes!



Actually, it needs a little organising. All my letters have a standard format for A4, which is of course on my Protext utilities disk as a file called (aha!) "A4" – see Fig 1.4.

If I want another format below, I just put in another ruler. This code extracts the address. It assumes the second file is empty. I assign it to Ctrl-f8, replacing the *Utopia* call to *Maxam*.

chr$(7)+"11"+chr$(13)+chr$(228)+CHR$(233) +CHR$(7)+"4"+CHR$(13)+ CHR$(233)+CHR$(219)+CHR$(25)+CHR$(21)+ CHR$(237)+">pl 10"+CHR$(13)+ ">tm 0"+CHR$(13)+">sm 20"+chr$(25)+chr$(219)+chr$(11)+chr$(25)+ CHR$(252).

The action goes like this:

[Ctrl-G, goto line 11] [Return] [Shift-Tab, move to Tab] [Shift-Copy, put in a marker] [Ctrl-G, goto line 4, Ret] [Shift-Copy] [Ctrl-B, block mode on] [Ctrl-Y, goto the second file] [Ctrl-U, copy the block after you] [Ctrl-I, make a spare line] [page length 10, return, top margin 0, return, side margin 20] [Ctrl-Y] [Ctrl-B, block mode off] [Ctrl-K, cancel markers] [Ctrl-Y] [Esc]

At the end you find yourself sitting in command mode in the second file, and either the address is ready for printing, or maybe a couple of spare lines at the bottom have come across because the address is shorter than the maximum. In this case some quick, mindless deletions fixes everything. The original file is unsullied.

Obviously, you change the margins to suit your printer and your envelopes. I really use that macro a lot, both at home and at work on a PCW 9512 *(never heard of it – ed.)*. The CP/M macros are a little different, but the principle (and the numbers) are much the same.

One thing more: if you have lots of macros stored you need to increase the space available. The *Utopia* command |TOKENS, 250 enlarges the buffer to cope with everything I have thrown at it so far. ●

Fun's cool

There's absolutely no deep virtue in any of this stuff. You don't need any of it to use *Protext* effectively, and it takes quite a lot of time to set up and debug, one way and another. But what's time for? Having fun. And what's it like fiddling with these mini-programs? Fun. So enjoy.

● Next month Peter Ceresole wrestles with his printer, and shows how to turn the CPC into a proper machine for £20 (honest!).

Stand up for Tasword!

Poor old *Tasword* tends to get left out of things somewhat – unfairly, argues TOM OSMOND, who begins a two part series showing just what Tasman's baby can do.

So why should anyone bother to reappraise such an "ancient" piece of software which critics are always so ready to slam into second place? A word processor should be simple yet effective, bearing in mind the limitations of the machine it is written for. After the program is customised, *Tasword* enables me to go straight to the business of writing, and so completes its primary function.

Its ease of use means I no longer have to concern myself with learning endless chunks of the user manual, and after only a couple of weeks the few command functions which are essential become second nature. It might be argued that, precisely because so much of *Tasword's* beauty and user-friendliness only becomes apparent when you've spent so long using it that you've forgotten it ever seemed difficult to use.

This is what I like best about *Taword 6128*, that message at the bottom of the screen telling me I have 65,276 characters free – a lot of space, you might feel, but so many of my files are in excess of 40K that I like to know the whole thing can be held in memory at one time for me to play about with. And besides, what's the use of having an additional memory bank in the computer if it's not going to be used?

With only 12 options to choose from this Menu looks like the most paltry selection ever, but believe me, nothing could be further from the truth. Press "C" (and RETURN) to customise the program and we can make a start to personalize this baby to our own requirements.

Keep pressing the **RETURN** key until the Change Program option appears and then press "Y" in response. Select a pen colour (I use 18), 2nd colour (2), paper colour (0), border 1 (0), border 2 (2), cursor (4 for a square, 95 for underline), cursor type (0), left margin (10), right margin (70).

Keep data merge, file print and Enter in the default mode for the present merely by pressing **[RETURN]**. Suppress screen rejustification (Y), right to left (N), unlock Help (N).

Tasmania! 1984 and all that

Prior to 1983 and before Tasman Software as we now know it came into being, Robin Thompson had created Tasword 2 for the Spectrum 48K – a program which, it is said, has since sold over 100,000 copies!

At a late stage in the CPC 464's development in 1983 they were approached by Amstrad to produce a word processor for this brand new computer and so in 1984Amsword was born, being launched with a widespread and publicity campaign.

But did this new program live up to its advertising and, perhaps more importantly, could it match the success of the Spectrum version?

Amsword (or Tasword 464, since they are one and the same) was followed by Tasword 464D which took advantage of the CPC's new disk drive unit.

Then, in keeping with Tasman's policy of following hardware developments, these programs were upgraded in due course to Tasword 6128.

In fact, as Simon Howarth of Tasman Software points out, the 6128 version has proven to be "extremely important" to the company, particularly in Australia, as well as in Holland and France, selling in the upper tens of thousands and being beaten into second place only by the Spectrum version! The Dutch company Filosoft has recently sold 20,000 copies of Tasword PC2 which has now become the accepted word processor in Dutch banks.

This can't be bad for a program initially developed on a Spectrum, and it offers an example of program development offering immediate familiarization should any CPC user ever have to use a PC – not to mention being one small blow struck for standardization!

Particularly nauseating

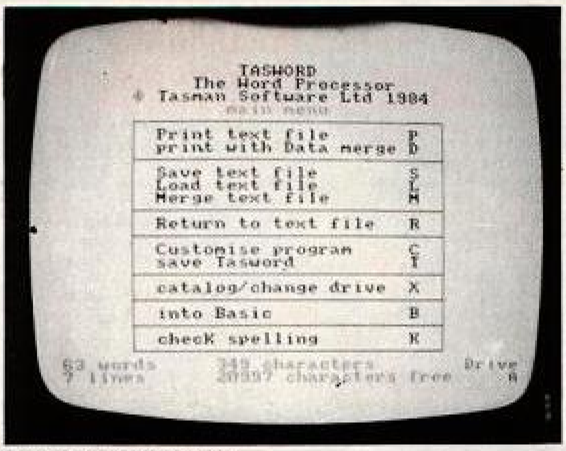
If you haven't yet bought a copy then sit back and learn why you should do: otherwise type RUN"T and let's take another look at this word processor. (What! You haven't been following the hints and tips columns and still use long filenames? Shame on you!).

The opening screen (on a colour monitor, that is) is particularly nauseating with its 80 columns of pale blue text. Press [CTRL]+[2], this clears away that unnecessary option to have part of the Help page on-screen and leaves us with... a blank page. Unless you've already mastered Tasword's manual this is useless so jump to the main Menu [CTRL]+[small ENTER].

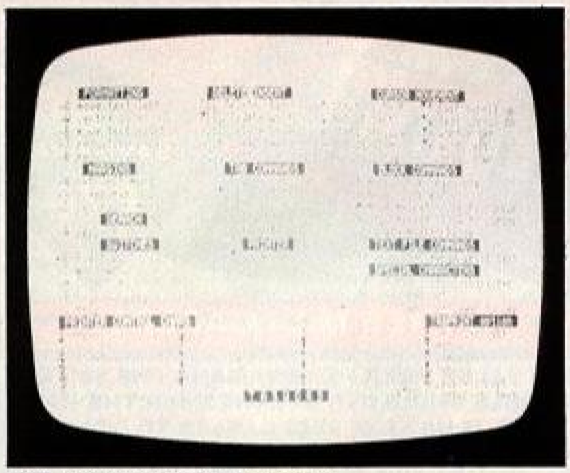
Particularly nauseating

This completes the first part and returns you to the main menu – all pretty painless! Select "R" from the Menu to return to the text screen and, wonder of wonders, a blank page! But if you type a few words you will notice the fruits of your labours. Return to the main Menu with [CTRL]+[ENTER] and select option "C" again – we haven't quite finished the setting up process yet.

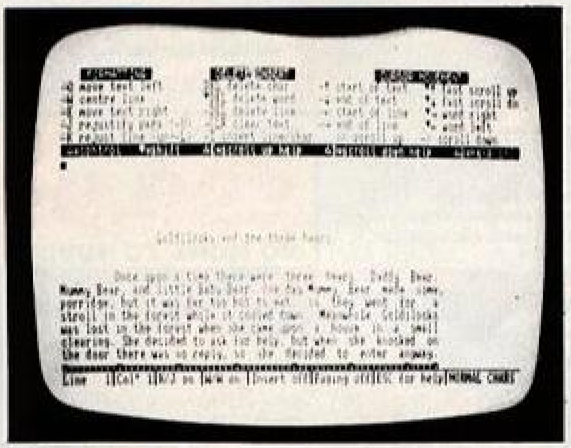
Select the first option to define the Page Layout. The number of lines required per page obviously depends upon your own requirements, but for letters and notes I use 56 lines. Header, from page number to top of page (2 lines), from header to text (3), from



● The *Tasword* menu screen.



● Tasword's comprehensive Help screen.



● Tasword in action.

bottom of text to footnote (3), from footer to bottom page number, if used (2), carriage return (13), linefeed (10), form-feed (12) - although check with your manual for these last three if you use other than Epsom compatible.

It is vital to program the required number of lines per page, and use of the paging facility when entering text **[CTRL]+[P]** will enable you to see page breaks on-screen. For manuscripts I use 26 lines to a page since these have to be double-spaced (an option I select from the printing menu, but more of that later), with top of page to header (4), header to text (3), text to footer (3), footer to bottom of page (2).

What's the point of all this? I'll admit it takes a few minutes and a bit of experimentation to key in these features, but there is only a need to do it once. (I shall refrain from naming the reviewer who indicated that all such changes had to be keyed in each and every time Tasword was **LOAD**ed! And there I was thinking that all copies of Tasword came complete with a manual!).

How come? Return to the main Menu and press "T" to **SAVE** your personal version. Now each time you **LOAD** the program from your own disk you are presented with all the features you need, with no need to change a thing. I have numerous versions ranging from letters to be printed in a standard font, letters in elite to double-spaced manuscript. I have only to select the appropriate disk and can start work. Surely nothing could be more user-friendly?

One plus factor on *Tasword 6128* is the use of the monitor as a "window". Although only 80 columns of text can be displayed at any one time, the program is able to extend the right margin to 128 columns (if needed) and the entire screen scrolls as you type up to this extended margin setting. Ideal for spreadsheets and other such applications, provided your printer can take paper of such a width.

Entering text is as effortless as you would expect. Tab settings can be included as and when necessary (the default settings being at every tenth column), or can be established before saving your own customised version of the program.

Merely press **[SHIFT]+[TAB]** to create an additional tab stop at the cursor position, or **[CTRL]+[TAB]** to clear unwanted tabs. Because I often use embedded printer control characters (more about this when we get to printing text) I prefer to keep my letterheads stored as a disc file.

However, *Tasword 6128* has a "notepad" facility whereby such items as addresses can be stored in memory and brought down into the text window as required at the touch of two keys **[CTRL]+[COPY]**. Frequently used words or phrases can even be incorporated into the Basic loader program by using a combination of **CHR$(13)** and **SPACE$(n)**, such as: **20 KEY 0,CHR$(13)+SPACE$(36)+"AMSTRAD ACTION"+CHR$(13)+ SPACE$(37)+"Future Publishing Limited"+CHR$(13)+SPACE$(38)+ "BATH"** With a press of **[CTRL]+[0]** (on the numeric pad) the above is printed into your text from the cursor position.

To SAVE a text file is completely effortless. By returning to the main Menu and pressing "S" a CATalogue is made of the disk together with a prompt for a filename. And that's it! LOADing back is a similar process: this time select "L" from the Menu and choose the file from the catalogued disk.

And what of the program's speed? Even *AA* tells us that text is reformatted one word at a time, but did you notice the suppress screen rejustification option above? Answer "Y" to this question and text is reformatted in seconds on the 6128 format.

To test this (unscientific, but it will serve as an example) I loaded a 30K text file, selected a paragraph (139 words) from the centre, completely reorganised the position of *every* line on-screen, pressed **[CTRL]+[J]** to rejustify the paragraph and the whole operation took a painless two seconds by my watch! So, if you don't suppress screen rejustification you too can sit for ever watching words roam about the screen with a life of their own.

Nor is the program unnecessarily slow in other respects. It takes seven seconds to go from top to bottom of a 30K file, and the same to return to the main Menu. Other programs may claim a faster speed, but with all this simplicity at your fingertips why grumble over a few measly seconds? Printing to the screen produces equally satisfying results. I touch-type in excess of 50 words per minute, and even with a huge text file installed *Tasword* still keeps up with me.

That's all for this month. Experiment with your own program and don't forget to save those versions of Tasword you are likely to use most frequently (of course they have to be on different disks!). ●

Call me old-fashioned

Whether a company is large or small its customer support is always important. In the two years since I began using *Tasword 6128* – and using it for professional applications – I have had no complaints.

Admittedly, I did have teething problems but one telephone call to *Tasman* and I received a personal reply in the post the following day! *Tasman* assure me that queries are resolved promptly (immediately, if humanly possible) and problems would always be resolved to the customer's satisfaction.

Personal service, now that must count for something these days!

● Next month Tom Osmond takes a look at the basic processing functions of *Tasword* and how to make that vital move from words on-screen to text on paper via the print option.

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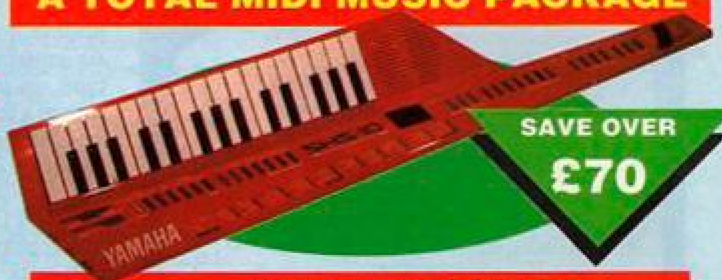
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Is MGT's Lifetime Drive the answer to your storage needs? ADAM WARING gazes into his crystal ball.

LIFETIME DRIVE

£129.95 (+ £18.50 for cable)
Miles Gordon Technology ● 0792 791100

A second drive that can be configured to work with just about any current micro, and one which uses 3.5-inch disks into the bargain sounds great. These disks are cheap, more rigid than 5.25-inch disks, and offer greater storage than 3-inch versions. Hence Miles Gordon Technology's Lifetime Drive – an 800K capacity drive which can be upgraded to any computer simply via the use of a different cable.



● MGT's lifetime drive: need you ever buy another B-drive again?

Yours for life!

Not content with giving you the definitive review, we're *giving away* an MGT Lifetime Drive. Thanks to MGT and *Amstrad Action*, some lucky reader out there is going to be set up for life...

All you have to do is answer the following three simple questions.

1. Which of the following animals has the longest life expectancy?
a) The Exploding Patagonian Bole-Weevil
b) A hedgehog crossing a motorway
c) The giant turtle
2. A 3.5-inch disk has the equivalent storage capacity of how many 3-inch CPC disks?
a) 0.3
b) $\sqrt{29.24} \times \Pi^{92}$
c) 4-5
3. Where does the word "disk" come from?
a) The back of a Rice Krispies packet
b) The Welsh Language Society
c) Ancient Greek

Answers on a postcard please, and address them to Lifetime Drive Competition, Amstrad Action, 4 Queen Street, Bath BA1 1EJ.

The cable plugs directly into the drive B socket on the 664/6128 and the drive, a Citizen mechanism encased in a compact, robust steel shell, can be used straight away – but only as a single sided 178K drive. To use it to its full capabilities, you will need a special disk operating system, such as *Ramdos* by KDS.

With the right software the drive will format 3.5-inch disks to 796K – over four times as much as a standard 3-inch CPC drive. Couple this with an average disk price of about £1, and it's clear you're going to save a lot of cash.

Standard CPM copying utilities work fine and programs transfer without problems. *Protext* works equally well, and multifaced software can be saved and run indirectly by snapshotting to drive A and copying the file across.

The drive is slightly noisy in use, but not so bad that you can't live with it. More daunting perhaps is the drive's price. In addition to the beast itself you need a CPC cable – another £18.50. Add to this the price of a disk operating system (up to £30) and the whole kaboodle is nearing the £180 mark.

Against this, though, the Lifetime Drive's compatability with several different computers goes a long way towards justifying the £60-odd price differential between the MGT drive and its CPC-only competitors. If you decided to sell your CPC (Heaven forbid!) and buy an Amiga, you would only have to fork out another £18.50 for the new cable to give your new machine its own second drive.

Nevertheless, the price may still put some buyers off. Now if MGT was to bundle a disk operating system and cut the price to the level of its competitors, the drive would become *the* CPC add-on.

As it stands, however, you'll just have to save those pennies and dream... ●

Counting the cost

Supplier	800K Drive with cable	with Ramdos	with Romdos	with Rodos
MGT	£148.45	NA	NA	NA
Siren Software	NA	£109.95	£119.95	£119.95
Datel	NA	NA	NA	£119.95
Microstyle	£89.95	£114.90	£124.90	£119.90

● Ramdos £23.95, Romdos £27.95 ● KDS (04853 2076)
● Rodos £29.95 ● Romantic Robot (01 200 8870)

GOOD NEWS
- **800K of storage per disk.**
- **Disks cost less than £1.**
- **Compatible with most other computers.**

BAD NEWS
- **Expensive.**
- **Won't work with 464s.**
- **Extra software needed for full use.**

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Note: Factfiles are question packs only and require the Answerback Junior Quiz.

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FORUM

ADAM WARING sifts through four pages of problematical prose



●Disappearing act

Help me please! I typed in a program from a previous issue about altering file status in BASIC (]iAA]g25). Unfortunately, I missed out a vital line, which resulted in all my files disappearing from the disk. In complete despair I got out my disk editor and found my programs, but I could not load them back in. How do I get them back?

Stewart Hector,South Molton

Your disk editor should have an un-erase file option, most do. This next letter should be of help...

●Data retrieval

I have discovered a handy routine that will retrieve lost files on disk. It's short, simple, and takes 20 seconds to type in:

```
POKE &A701,229:|REN,"0:]iFILENAME]b",
"]iFILENAME]b":POKE &A701,0:CAT
```

Hey presto! The program is back.

Keith Grimsditch, Stockport

£20

Well done Keith, you've already helped Stewart out. You'll soon be getting a well-deserved tenner from the postman!

●That's the sprite

When I Bought my 6128 I got 17 free programs, one of which was *Shape and Sounds*. Having had the computer for a year now, I've written some pretty good BASIC programs using the shape designer.

However, when the shapes overlap, the colours mingle. I've read something about 'sprite planes', where sprites are able to go under or over other graphics without this problem. Is there a way to do this in BASIC?

Now that I know BASIC well, I would like to move onto a different language, such as machine code. Please could you suggest a suitable beginers book and software package.

David Cardus, Stamford

The answer to your first question is no, I'm afraid, David. You really need to write a machine code routine for something as complex as sprites. Perhaps a listing will appear in a forthcoming Type-Ins?

Good new. We are about to run a series on machine code very soon. If you can't wait till then Assembly Language Programing for the Amstrad CPC464, 664 & 6128 *(by AP & DJ Stevenson, Argus Books Ltd, ISBN 0 85242 861 8, £7.95) is the book for you. As for an assembler, you could do worse than Maxam II, which is available at the special price of £24 (usual price £49.95) from Arnor Ltd (0733 68909).*

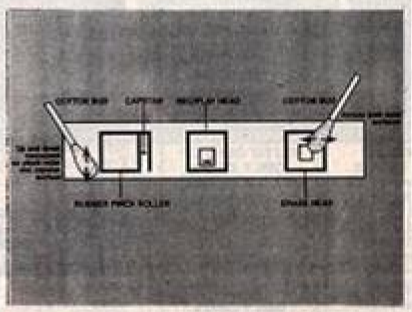
●Wiping the tape clean

I have been a regular reader of *AA* for some time, and have never seen a detailed method of cleaning the tape deck. The common reasons for read errors on programs are oxide on the heads causing loss of high frequency, and deposits on the pinch roller/capstan resulting in the tape not riding correctly. The mechanisms should be cleaned with cotton buds dipped in de-natured spirits whilst the cassette is set to *play*.

£10

John McCormack, Garelochhead

Cheers John, a practical tip that I'm sure everyone will find useful.

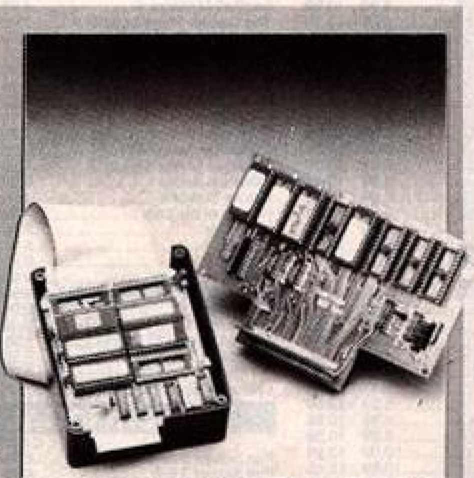


●Board with ROMs

I have been thinking of buying the ROM version of *Protext* but I don't know anything about additional ROMs, such as where to fit them. I have also read about ROM boards, and have no idea of what they are for.

Stephen Godrich, Swansea

You need a ROM board for connecting a ROM to the computer. The board fits into the computer's expansion port and has up to eight ROM sockets that can individually be switched in or out.



● ROM boards: instant access to your favourite software.

●Sound advice

I have owned my 464 for about 3 years now and recently I have become interested in the serious side of things, including using the expansion ports on the back. I know what all are used for except one, a small round socket on the right hand side when viewed from behind.

At first I thought it might be some kind of headphone socket, but this does not seem to work. What's it for?

Paul Hiley, Sheffield

Your guess was right, it is a headhone socket, but the signals it produces need amplification to be heard. Try linking it up to your hi fi's line

in or aux input to hear the CPC in glorious stereo.

●Protection racket

Could you please print a listing which saves and loads some sort of protected loader to protect my programs from prying eyes.

Daniel Smith, Dublin

No need for a listing, Dan – the firmware has built in protection routines. Save your BASIC programs like this:

```
SAVE "filename",P
```

Your programs can only be loaded with the RUN command. Any attempt to break into and list the program will erase it from memory. Don't forget to keep an unprotected version of your program somewhere, or you won't be able to get into it yourself!

●Detective work

Here is a short routine that detects if the printer is on line or not. This could be used in programs such as a word processor to test whether the printer is ready to accept data.

```
10 IF INP(&7500) AND &40 THEN PRINT
   "Off line" ELSE PRINT "On line"
```

It was written on a 6128, but I see no reason why it shouldn't work on any of the CPCs

Stephen Trimmer, Broadstairs

Thanks Stephen, do other readers have any useful one-liners?

●Power cut

I have recently purchased a second-hand 464 with green monitor. It was very reasonably priced and came with good software.

There is one snag though – the five volt power plug that attaches the monitor to the computer had broken off. Until recently, this was no problem, being held in place with blu-tac. But now the screen has started to shiver when loading games, and I'm getting a lot of read errors. Are the two factors related? The person I bought the computer from said he would solder it back on. Is this wise, or am I better off getting it mended by a profesional firm?

K Harvey, Oxon

Soldering the power plug back on is a simple job, so I wouldn't worry about it too much (unless this guy's completely incompetent!). You'd be well advised, however, to buy a new plug, costing about 30p, from your local electronics shop.

●Psion language

I may be able to help with 'Psion of the Times' in *AA48* I have been using a Psion Organiser with a 6128 for a couple of years now, and I can tell you that the two computers work together perfectly, although I must confess that it did take an awful lot of trial and error to begin with!

Fred will need the RS232 interface and some terminal software (I use the Pace interface and *Honeyterm*. The software for the Psion end comes built into the comms link, so providing he lays out the £50 or so required he should have all he will need.

The settings for the CPC running *Honeyterm* are as follows:

XON/OFF	OFF
AUTO LF	ON
ECHO	ON
DELETE	127
BAUD	9600
PARITY	NONE
DATA BITS	8
STOP BITS	1
HANDSHAKE	HARD
PAR CHECK	ON

And the Organiser:

BAUD	9600	
PARITY	NONE	
BITS	8	
STOP	1	
HAND	XON	
PROTOCOL	XMODEM	
ECHO	HOST	
WIDTH	80	
TIMEOUT	NONE	
REOL	NONE	
REOL	13,10	<CR><LF>
REOF	26	<SUB>
RTRN	NONE	
TEOL	13,10	<CR><LF>
TEOF	26	<SUB>
TTRN		NONE

Simply connect the organiser to one end of the comms link, and the RS232 interface to the other, set up the configuration, and the two machines will be able to talk to each other using XMODEM.

I also have a query. If I bought an 800K 3.5-inch second drive and saved an ASCII file created with *Protext* on it, would I be able to load it into *Wordstar* on our 3.5-inch drive PC at work?

Adrian Pegg, London

It's all gibberish to me, Adrian! I'm sure that Fred will find the information valuable though.

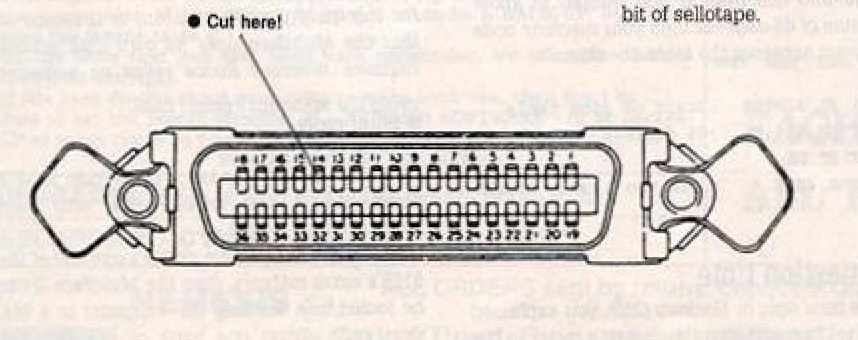
As for your disk drive query, I'm afraid the answer is no. Although both machines use the same type of disk, they have different formats for reading and writing the information on the drive.



●Between the lines

Several letters have come in this month concerning problems with printers connected to the CPC range leaving a blank line between each row of text. This fault is peculiar to CPCs and happens with several different makes of printer. It is caused by the AUTOFEED signal being held low, hence an extra line feed is sent with each character return.

To solve it, pin 14 of the printer port must be disconnected, either by cutting the wire in the printer cable which goes to that connection, or by simply masking the pin with a bit of sellotape.



●Bowled over

I carefully typed in the '10 Pin Bowling' listing (*AA49*) on my 464, but when I ran it I got an error in line 210:

```
210 GRAPHICS PEN 1
```

●Thick head

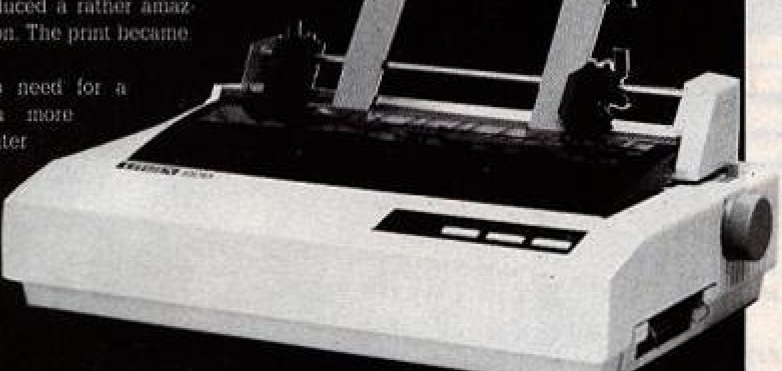
Having bought a Citizen 120D printer last Christmas, I must admit to having been somewhat dispointed with the print quality, which was faint and slightly blurred.

However, while experimenting with my word processor, I noticed that the print head was touching the paper, and producing a bruising pattern. Backing off the print head using the right hand side adjuster to the centre position produced a rather amazing transformation. The print became bold and crisp.

Therefore no need for a new ribbon, a more expensive printer or a fancy software solution, just a minor mechanical adjustment.

John Bowles, Wotton-Under-Edge

The lever you refer to is the paper thickness adjuster, which simply moves the print head closer to, or further away from the paper. Personally, I have mine as close to the paper as possible, as I haven't bought a new ribbon in the three years I've owned it!



I couldn't find this command in the manual, so I changed it to read:

```
210 PEN 1
```

Which worked, then errors in 740, 760, 780, 920. Is my computer going sick, or is something wrong with the program? I am at suicide beach. Please put my mind at rest.

Richard Corbin, London

The published listing works fine – on a 6128! Unfortunately, 464 owners can't enter the program as printed, because some commands only available on the 664 and 6128 have been used, notably GRAPHICS PEN and FRAME.

Replace the GRAPHICS PEN with PEN, as Richard suggests. FRAME can be emulated on a 464 by CALL &BD19.

We appologise for any loss of sleep caused by this, and from now on any future Type-Ins with restrictions as to what machines they run on will be marked as such.

●A twisted tale

Here's a handy tip for Canon PW1080a printer users, and it might work on other printers as well.

I noticed that the print head doesn't run through the centre of the ribbon, but up through the top instead. All you need to do when the ribbon runs out of ink is turn the ribbon upside down and print using the other half. Just twist the ribbon once at the front, and wind it all the way round. Hey presto, the ribbons upside down.

Christopher Bowler, Carshalton

Hmm, must try this on my 120D...

●Sine language

I am puzzled at how you rotate an object around its point of origin in machine code. I know there is a lot of mathematics involved but I don't see how to put commands such as SIN and COS down in machine code form. Please could you give me an insight of how to do this?

Carl Jefferys, Standon

Professional coders don't actually calculate sines and cosines in real time, as this would be far to slow. A table of values is set up instead, which can be generated by a BASIC program:

```
5 'Sine wave table
10 deg
15 sintab=&8000
20 for n=0 to 359
25 x=int(sin(n)*128)
30 if x<0 then x=x+256
35 poke sintab+n,x
40 next n
```

This sets up a two's complement sine table. All numbers are multiplied up to provide a reasonable scale – in this case 128 – to fit the range into one byte. If you wanted to know the sine of 45 degrees then your machine code program accesses the table like this:

```
LD HL,SINTAB   ;Start of sine table
LD DE,45       ;45 degrees
ADD HL,DE
LD A,(HL)      ;A=two's comp result
```

●Question time

Some time ago, in *Hackers Only*, you explained how to start and stop the cassette motor in the 464. Could you please explain how to read and write to the tape?

Is there any way of copying the BBC micro's EVAL function? This allows you to access BASIC through a program, e.g. You could input a formula for a graph, and the formula would be incorporated into the program.

How about a Soldering On project for a ROM board and an EPROM blower? A bar code reader for scanning bar coded programs shouldn't be too difficult, should it? All you'd need is an L.E.D. and phototransistor to detect the black and white stripes.

Finally, how about a series for teaching LOGO?

Shabaz Yousaf, Slough

Call &BCA1 to read from the tape and &BC9E to write to it. In both cases HL points to the data load/save address, DE is the length and A is a syncronisation character. If anything goes wrong, carry will be false and A will contain an error code.

Not that I know of. The CPC's VAL function will only evaluate the first number in a string, it ignores variables and calculations. If any readers have any bright ideas, let me know. A tenner's up for grabs!

Anyone fancy blowing up their CPC for the sake of fame and glory? Send details of your crazy contraptions to the usual AA address.

LOGO? Oh yes, that's the program nobody ever uses on the back of the CP/M disk, isn't it? I'm not sure that there would be enough interest to warrant a series, to be honest. Let me know what you think, and if I'm proved wrong then after I've eaten my hat, I'll consider running an article.

●Super pooper

Phil Craven's "ABBA" article in *AA44* would appear to provide a cheap method of switching a large capacity disk drive into the position normally occupied by the 3-inch internal drive, allowing Multifaced programs to be stored on the 800K disks.

Having a similar wish, I found that my Multiface would not recognise *Rodos* format disks. Romantic Robot, who make both products, tell me that it is not possible to save Multifaced programs to *Rodos* format disks. Does Mr Craven know something that we don't?

R Kendrick, Holme on Splading Moor

Phil tells me that using the drive switcher with the Multiface was only a suggested use, and that the project was not actually tested for this purpose. The reason, it appears, is that the Multiface uses its own disK access routines, whereas Rodos relies on software using the standard system calls.

● Blunt reply

I have a tip that may be of some help to W R Blunt (*AA49*) and anyone else who uses Multiface II on a 6128.

As long as the game doesn't use any of the 6128's extra memory, then the Multiface II can be fooled into thinking the computer is a 664, thus only saving one bank of 64k memory, instead of two banks, thereby saving valuable disk space.

●MAA MODS

Here is a very useful MAA tweak. Load MAA and type in these lines:

```
3351 DATA push hl,e5,1,pop hl,e1,1,ex (sp) hl,e3,1,push de,d5,1,pop de,d1,1,push bc,c5,1,pop bc,c1,1
3451 DATA and,e6,2,and b,a0,1,and c,a1,1,and d,a2,1,and e,a3,1,and h,a4,1,and l,a5,1,and a,a7,1,and (hl),a6,1
3452 DATA xor,ee,2,xor b,a8,1,xor c,a9,1,xor d,aa,1,xor e,ab,1,xor h,ac,1,xor l,ad,1,xor a,af,1,xor (hl),ae,1
3453 DATA or,f6,2,or b,b0,1,or c,b1,1,or d,b2,1,or e,b3,1,or h,b4,1,or l,b5,1,or a,b7,1,or (hl),b6,1
3454 DATA cpl,2f,1,di,f3,1,ei,fb,1,exx,d9,1
3455 DATA ex de hl,eb,1,ccf,3f,1,scf,37,1
3456 DATA ld sp,31,3,ld sp hl,f9,1
3457 DATA halt,76,1,daa,27,1
3458 DATA inc sp,33,1,rra,1f,1,rrca,0f,1
3459 DATA ex (sp) hl,e3,1,ex af af',08,1,dec sp,3b,1
3471 DATA adc a (hl),8e,1,add a (hl),86,1
3751 DATA ldir,ed,b0,1,lddr,ed,b8,1,neg,ed,44,1
3752 DATA ld () sp,ed,73,3,out (c) c,ed,49,1,out (c) a,ed,79,1,out (c) b,ed,79,1,out (c) d,ed,51,1,out (c) e,ed,59,1,out (c) h,ed,61,1,out (c) l,ed,69,1
3761 DATA im 0,ed,46,1,im 1,ed,56,1,im 2,ed,5e,1
3762 DATA in a (c),ed,78,1,in b (c),ed,40,1,in c (c),ed,48,1,in d (c),ed,50,1,in e (c),ed,58,1,in h (c),ed,60,1,in l (c),ed,68,1
```

You are now able to use squillions more instructions. When using the logical mnemonics (i.e. and, or, xor) with a number, it is important to type a comma between the two: XOR,37.

The comma must be left out when using a register, for example: XOR C.

Edward Hieatt, Cambridge

Sounds logical to me, Edward. You also get first prize (or would if we did one) for longest single line of the month!

Before selecting the save option, press "T" to enter toolkit mode, select "W" for window, "H" for hex, followed by the space bar, and enter &3A96. Change the '02' at that address to '01'.

It should be possible to store at least 3 games per disk using this method.

Hugh Gammon, Llanelli

Ta.

●Plotting for exams

Reader in distress! I'm doing a project to make a plotter for my GCSE exams, and I am in desperate need of a tape based 3D wireframe program or CAD system that supports a plotter. If anyone knows where I could get hold of Arnor's discontinued program *Model Universe* I would be eternally grateful.

Do you know of any books I could read to enlighten me on the subject of plotters and similar devices.

A while back I was dusting out the innards of my CPC, and I noticed several places on the PCB where components are supposed to be attached. I was wondering if you could tell me what goes in them.

Nigel McDonnel, Watford

For goodness sake, do not stick anything in these gaps on the circuit board. They are for slight variations of the internal workings of the machine, and have no effect as far as the user is concerned. You'll end up visiting the repair shop if you do.

I don't know a lot about plotters. Perhaps someone else can help?

●User friendly

I have a little piece of information that may be of interest to readers. For those people who thought that the only way to access another user area was the `|USER` command, think again!

Try `SAVE"15:screen",b,&c000,&4000`. The current screen will be saved to user area 15. The number before the colon specifies the user area that the data is saved to.

The same works for drive switching. On a two drive system typing `SAVE"B:hello.bas"` will save a BASIC program to drive B.

These identifiers also work with the `|ERA` and `|DIR` commands too!

Paul Green, Dudley

Thanks Paul, user decent chap!

● Hard drivin'

I have a CPC464 with disk drive and am about to upgrade using the 6128 chip. I am also considering adding a second 5 1/4 inch disk drive.

Recently I was given a 'Shinwa Digital Industry' hard disk, model no D220. Would it be possible to connect this to my CPC instead of the second drive, or could I connect both?

Have you any idea what capacity the hard drive is likely to be?

Mark Hale, Brent Knoll

You'd have a very difficult time trying to get the hard drive working with your computer. For a start, there is no available software to run a hard drive available for the CPC, so you'd have to write the disk operating system yourself.

You'd also need to construct a purpose-built interface. You don't know the drive's capacity, so I don't imagine you know what any of its connections are for.

The short answer is no.

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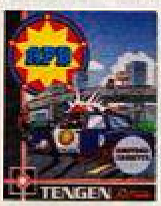
ACTION TEST

Zooming into action with another clutch of CPC entertainment - Trenton!

Christmas is coming and software houses are positively falling over themselves to bring out 'hit' titles, we preview the lot. *Continental Circus* starts the Christmas cars wars, *Shinobi* gets the full treatment and we introduce a new budget section packed with £2.99 action.

APB

Tengen/Domark ● £9.99 cass, £14.99 disk
joystick/keys



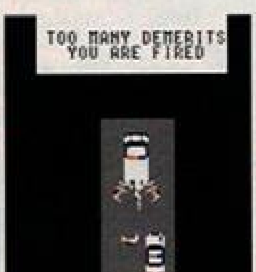
APB puts you behind the wheel of a police patrol car for a week of traffic duty, arresting everything from drug dealers to cones, keeping death off the pavement and firmly on the roads.

You view your car from above as you charge looking for law breakers. Spot one, and you switch neatly to Judge Dredd mode for the chase. In front of your car is a siren target cursor, which goes further in front the faster you drive. When you get a track on a perp, hit that siren and see if they come quiet. You'd prefer it if they don't, 'cos then it's *fun time!*

Normal arrests are easy: a blast on the siren and most offenders head for the police station. But a policeman's lot is not a happy one and this is reflected in Bob's other duties:



● The cursor aims your siren



● OfficerBob gets the sack

rescuing breakdown victims, collecting doughnuts for extra time and answering APB calls. This means a targeted criminal will pass through your manor, and you got to nick'em.

The hardened criminal elements are much tougher to catch and must be stopped with the aid of your Buick's fender. If you're good enough to apprehend them, take your victim back to the pen for interview. Now this ain't the Bill and the name of the game is beating a confession out of the "criminal." You have to be careful, though, because if the Captain returns unexpectedly and catches you in the middle of a GBH session, you're history.

SECOND OPINION

"The trouble with arcade conversions is that they can only ever be as good as the original. This one might well have been better left alone." SC

GREEN SCREEN
No trouble at all, Officer!

Other surprises for the fledgling officer are left lying on the side of the road. Huge doughnuts and bags of money can be bonuses (extra time etc.) or traps set to catch lazy officers. Most difficult of all to deal with are other drivers. Due to the small playing screen, little of the road ahead is visible. So in the middle of a pedal-to-the-metal pursuit you can find some doddering old granny in an Austin Seven in front of you. And collisions result in a demerit.

Eight demerits, and you're finished: no pension checks from these boys, they'll beat you up and sling you in the paddy wagon. Taking too long on a day's work also has this effect, so eat those doughnuts and keep an eye on that there clock!

The playing screen is tiny and the sprites are small. Controls are in the *Grand Prix Simulator* style, so you become disorientated quickly and lose valuable time and demerits ramming the same wall three times in succession. The biggest bugbear, though, is the multiload. On disk the game plays well with short bursts of action and quick scene switching. On tape this non-sequential game is ponderous and irksome. To make matters worse even the "pretties" – the beatings up – require a rewind and search before you can play on.

As with *Xybots*, the arcade origin severely limits the game, but on disk *APB* is both



● The pink car's full of litterbugs, so nick 'em

playable and amusing. On tape the novelty soon wears off. *APB* was the weakest of the Tengen licences won by Domark and, unfortunately, it shows. TW

FIRST DAY TARGET SCORE

Three continuous days on duty

The Verdict

GRAPHICS **69%**
- ☐ Amusing cartoon graphics.
- ■ It's so small!

SONICS **71%**
- ☐ Great siren effects.
- ■ Weird music.

GRAB FACTOR **72%**
- ☐ Quickly understood and easily played.

STAYING POWER **30/69%**
- ■ A real bad multiload nightmare.
- ☐ Disks are fine.

AA RATING **60%**
- ☐ Good conversion of a mediocre arcade.
- ■ Tape users beware!

SHINOBI

Virgin Games ● £9.99 cass, £14.99 disk joystick/keys

Shinobi: oriental magic and myth surrounds his clan, who have been perfecting the martial arts since time immemorial. Now his fighting skills are to be employed by the forces of justice. The children of the world's leaders have been kidnapped by a group of nasty ninja terrorists called the Ring of Five, and it's *Shinobi's* task to save them.

The trail to their hideout is going to be tough and more than a little dangerous, as anyone who played the demo on *AA's* cover tape last month will know. This doesn't worry the green pjs though. When he starts to rock, it's magic, pure magic.

Now there had to be a point to spending countless years sat on the side of Mount Fuji in meditation *(I thought it was in Japan? – ed.)*, and the point is this: when the going gets tough, the tough clasp their hands together and call in a spirit-guided air strike. *Shinobi* can summon his warrior ancestors to come and lash his current foes, and warrior ancestors come in very handy when you're facing the big nasty at the end of each level. But (there just had to be a but) there's a strict limit to the magic you have available, so be cautious and use it only in extreme difficulty, not just when you panic.

Controlling *Shinobi* is no trouble, because he has very limited fighting moves. This is no great loss, however, since despite appearances *Shinobi* isn't really a fighting game. The way to win is to be in the right place, with the right weapon at the right timey. Slaughter is not of the highest priority. Rescuing the hostages should be your primary concern, followed closely by staying in one piece.



● The bonus stage ninja duck shoot



● Level two's hard-to-kill nasty is actually a helicopter and not a ninja!

Hostages bring points and power, because when you save one of the little darlings on each level you get a dart throwing gift. Even the guys with the shields fade into obscurity if hit one of them with the thrown equivalent of the Colt Python. If you die, though, the power is lost so stay frosty and the levels start to fall.

There are enough sticky points to plague you for weeks after you've progressed beyond that particular section. Russian roulette would be a safer option than taking on that helicopter again. Gameplay is the bedrock that *Shinobi* is built on, and the foundations are solid indeed. All you can really do is throw and kick to kill people, but it's the timing that's important. It seems that being a ninja master, like being a good comedian, depends more on delivery than material. That must be the case, otherwise how could you kill an 18 foot lizard with tiny tin stars?

Arcade accuracy in *Shinobi* is phenomenally helpful in maintaining interest, especially with the recreation of the the target range someone of *Shinobi's* pedigree, though, because he's had plenty of practice for this very mission in arcades all over the world. But now it's time for the main event. And you're in control!

Leaping tall buildings in a single bound is *Shinobi's* speciality. Armed with a unlimited supply of shurikens and the occasional dart he vaults his way through a variety of platform locales: office blocks, docklands and woodland among them.

The Ring of Five, a group of "super ninjas" and their camp followers (if you see what I mean), are a mixed bunch. Most of their boys are just street thugs dressed like punky bikers – easy prey: a quick kick in the groin and it's domino time. Littered about the place, though, are master ninjas – fat red ones with shields – who don't go a whole bundle on a throwing star in the earhole, and are much harder to knock over. Sundry other problems force themselves into the frame: spidermen, camouflage ninjas, divers with scuba gear and katanas, not that they ruffle our boy in



● Shinobi's magic is especially useful in weakening the big nasties

bonus sections. Ninjas appear en masse in the far distance and your hands are shown flicking deadly throwing stars off at them. They leap into the air and start to work their way forward intent on doing you down. On the demo version of the first level this section wasn't that tough, but things have a way of changing. To get an extra player on later levels killing every ninja requires a cool head and quick threat identification.

SECOND OPINION

"Now this is what I call fighting! There's loads of stuff to do, and I doubt you'll be complaining about lack of money. There hasn't been a better fighting game all year."
SC

GREEN SCREEN
Things ain't clear at times

It's a multiload, but that shouldn't be a major disadvantage. Each level is worth reaching, and with the game's breakdown into small but tough sections it doesn't take too long for you to get into the action. Green screeners might be frustrated by some of the stage backgrounds which occasionally use colours that have little contrast on a mono screen (green and red). This, however, is to make full use of the CPC's colour potential, and any attempt to maximise the CPC's ability must be applauded.

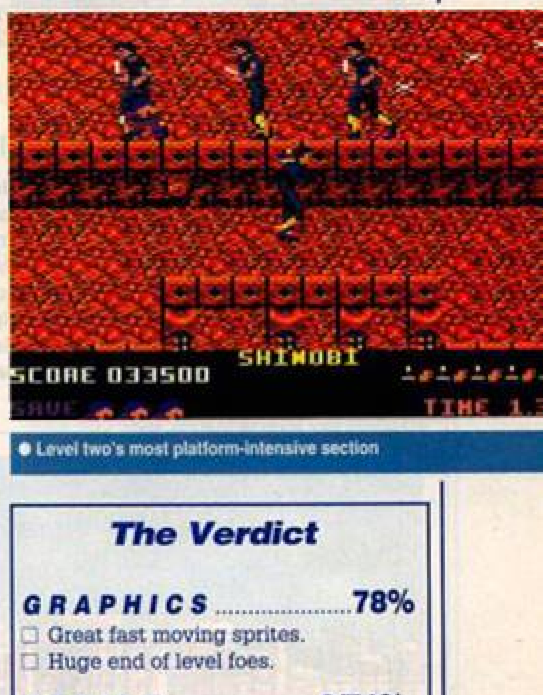
With over 30 people to croak in three minutes if you're to get through the first level, the pace is fast and furious, with difficult terrain thrown in for good measure.

Thing is, for all the punishment he can dish out *Shinobi*'s a real wimp, one blow and he's down and when he sets off the magic there's not that blood curdling "Shuriaaaaaaah!" *Shinobi* is a brilliant conversion that makes life just a little easier and cheaper than standing for hours in dark and dingy arcades filled with smoke and other bloodthirsty people like yourself. TW



● Watch out for these guys in red – they hide behind sheilds and throw a mean dart!

FIRST DAY TARGET SCORE
40,000 points



● Level two's most platform-intensive section

The arcade antics of Richard Aplin

Shinobi is the work of Binary Design: CPC hitman Richard Aplin did the coding. In years past he's written many games for various machines, such as the rather tremendous *Flyspy* (*AA19* 87%), but this is his first CPC game in eons. TRENTON WEBB was the man with the tape recorder...

What were the major problems of coding *Shinobi*? "Fitting it all into a 64K machine! It's a very large game and it's got loads and loads of levels. That's not the problem, though, because you can write one bit of code and run all the levels on it. The main problem is the end of level guys, because they're all different and you have to write a lot of code just to do each one." The most impressive end of level encounter involves a stack of spinning Buddha-type statues. "Each one's very big and there's awful lot of them, all in all they more than cover the screen, then they all have to scroll. On tape this means it multiloads an awful lot, which is really unfortunate but it's either that or have a naff game".

The CPC? "I was expecting to have problems, going to it from an Amiga, but I really had forgotten how much fun it was. It's a very good machine to work on. It takes a fair bit of effort to get the best out of it, but you get nice results if you work at it."

Future projects? "At the moment I'm just finishing *Double Dragon* and I'm just about to start on *Double Dragon II*. I've been doing it for about three months now. It's all in there, the weapons, all the baddies, a two-player option. If it's as good as *Shinobi* I'll be well pleased!"



The Verdict

GRAPHICS 78%
- ☐ Great fast moving sprites.
- ☐ Huge end of level foes.

SONICS 0/71%
- ☐ Strong sonics on 128K machine –
- ■ None *at all* on 64K!

GRAB FACTOR 91%
- ☐ The right mix of difficulty and playability.

STAYING POWER ... 81%
- ☐ Over 15 completely different stages.
- ☐ Bonus life feature.

AA RATING 87%
- ☐ Brilliant conversion of an arcade pace setter.

CONTINENTAL CIRCUS

Virgin Games
● £9.99 cass, £14.99 disk joystick/keys

"We're going to the circus" the AA office cheered! "I want to see the lions" said Steve. "The clowns, we want the clowns" cried Pat and Adam together. And me? I want to see the Ferrari! Because the circus that's coming to town ain't clowns but cars, and race time is drawing near.

One hundred of the most sophisticated motor vehicles ever to grace the tarmac are lined up for the Brazilian Grand Prix. Their three-litre power units rattle and hum waiting for the off. Five seconds and a plume of tyre smoke later, the race is on. Millions watch as the drivers take corners at ridiculous speeds and pass within nanometers of each other while overtaking . This is the real Continental Circus, a troop of ultra-tech gladiators travelling the world in shinning steel chariots.

Circus is viewed from above/behind and there are very few controls – accelerator, left, right and gear change to high or low – sensory overload is not usually a problem with car sims. It does break the rules in one vital area though, it's fast and playable! Only *WEC Le Mans* has achieved any level of graphic clarity at speed, and that's left streets behind by *Circus*.

Trackside, you wait for the nice lady to give you the five second flag – time to get those revs up. There's a technique for quick starting and it pays to practice, otherwise you'll find those hard won places slipping away on the first straight. The lights change fast, so rev up and stay sharp.

When you finally get to change into top gear and blast down the straight, get set to hold on tight. This one's a humdinger (yup your hum will be dinging like never before). Top speed is a fine balance of driveability and nerve jangling pace. Exact and well timed movement is necessary to weave your through the field, and driving on the grass is even permitted during real on-the-edge dicing.

Each track has an intro tune and little jingles for section finishes and pit stops, and a resounding whoosh breaks up the engine noise when you scuttle past somebody. The revs are more than a continuous monotone, actually changing as you accelerate, allowing you to drive by feel, ignoring the displays.

Motor racing is tough of course – and so is Circus. The real danger lies in the other competitors, not the track. Drivers seem positively drawn to your machine, trying to T-bone you on sharp bends and breaking suddenly as you're climbing over their gearbox. A prang doesn't mean game over though. Finishing is still possible, but you'll have to push your luck and the remains of the car to the limits.

On every section of the track there are pit lanes where the sick cars of the world go to get medical help. Pulling over here causes two little mechanics to rush to your aid, and before you can say "very nice man" everything's fixed. Pit lanes are useful to those with healthy motors too! The extra wide road provides an ideal overtaking zone when you're in traffic: go wide, drop a cog and 'ning' four or five at once.

Good placings are the key to success at the Circus. To qualify for the second race you've got to overtake twenty cars in the first – Brazil – and finish 80th or above. Each track is split into sub sections which you've got to complete in an allotted time, the margins for error and accident recovery getting slimmer with every stage. If you make it round but

The tale of the tracks

1=Brazil
2=America
3=France
4=Monaco
5=Germany
6=Spain
7=Mexico
8=Japan



● America: more of a drag strip than a race track



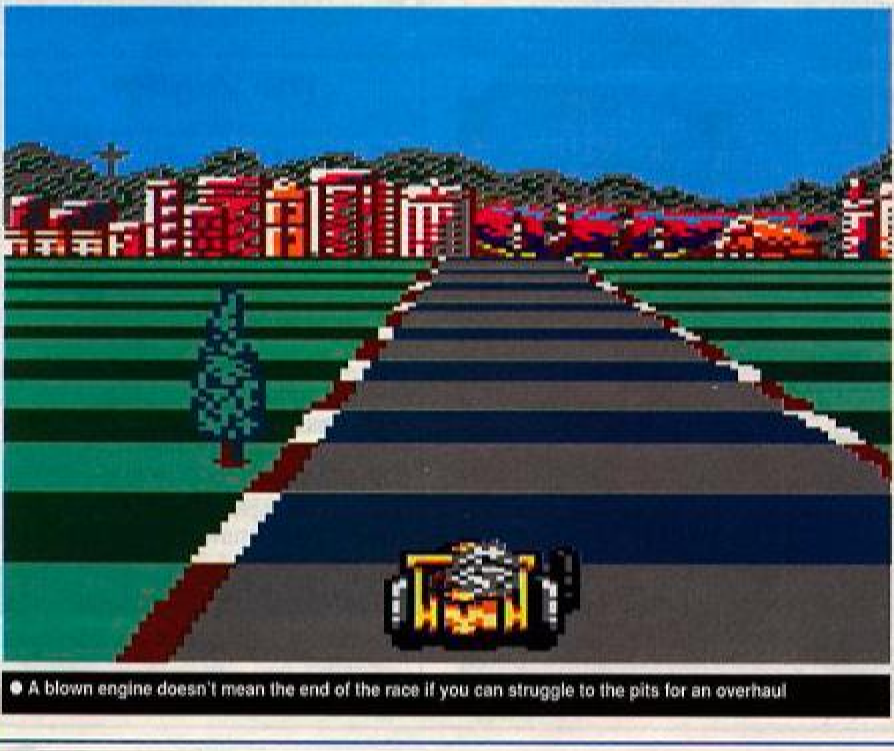
● Rev in time to the lights on the left



● Slow starting can cost you qualification



● Change tyres and get repaired by the pit crew



● A blown engine doesn't mean the end of the race if you can struggle to the pits for an overhaul

haven't taken enough people then you do the same circuit again, starting from a higher grid position. Success is greeted by a flag-waving marshal and a trip to the States.

Life in the fast lane isn't easy in Brazil, in America it gets difficult (the first US stage is a sprint trial with gentle corners, long straights and very little time) and in Japan downright dangerous. Then of course there's the weather. Usually you're on the limit going into a corner when the rain splatters your visor. Traction? Forget it! When the rain starts, attempt any high-speed cornering shod in slicks and you'll redesign the body shell.

What can a driver do to improve wet weather handling? Simple – fit chunky rain tyres by screaming into the pits at the next opportunity. That is if you can make it to the pits while aquaplanning everywhere! The rain is random and doesn't feature in Brazil (the first race) but it adds excitement by removing the certainty that you can complete any lap if you practice enough. The rain cuts in after the first set of pits, so you're forced to complete at least one section with white knuckles (if not so white overalls).

The graphics don't break any new ground, but the cars' shapes are solid and easy to judge when overtaking. The track is easy to read and each circuit has a characteristic backdrop (Jesus can be clearly seen on that mountain in Brazil). There no are WEC-style crashes but the eight different tracks more than make up for that. The essence of the original has been captured without resorting to crudely copying the arcades version's 3D effects. Theses peripheral details are ignored; the important stuff is the racing. And what racing it can be. If you've got a lead left foot then this one's for you.

Continental Circus – the game with no brakes!

TW

SECOND OPINION

"The best driving yet for your CPC! If you liked WEC but got bored with driving round the same old circuit then Continental Circus *is the one for you. Test drive it today!"* **SC**

GREEN SCREEN

Visible and ecologically sound cars (green – geddit!)

The name game

Legend has it that the game acquired its rather curious title as the result of good old human error blended with modern machine malfunction. When the plans for the arcade cabinets were sent to the European manufacturers the writing became unclear and what once said Continental *Circuit* now apparently looked like *Circus*. The manufacturers never thinking to question such an obviously daft title, the cabinets were painted and the mistake was only discovered when the machine and its box were united. There's nothing like good communications, eh?



● When it rains change gear, slow down, and pray you make it to the pits for a tyre stop



● Look for the statue of JC on the hill



● Brazil: hairpin city!

FIRST DAY TARGET SCORE
Finish America



● When you see the finish line, forget those problems and charge

The Verdict

GRAPHICS **79%**
- ☐ Fast cars, solid sprites.
- ■ Every car's yellow!

SONICS **83%**
- ☐ A tune for every track.

GRAB FACTOR **91%**
- ☐ The first track is easily finished...
- ☐ ...after some practice.

STAYING POWER ... **93%**
- ☐ Eight tracks to race on.
- ☐ Increasingly difficult.

AA RATING **92%**

- ☐ As a racing games go this takes pole position.


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● Great graphic work as usual, just look at those explosions!

OPERATION GUNSHIP

Codemasters ● £2.99 cass joystick/keys

Treetop level is where it's at in this "where have I heard that name before" helicopter sim from Codemasters. The gameplay? Skimming over the surface at crazy speeds with guns cocked, missiles primed and a wicked grin on your face.

Your mission, however, is one of mercy. Eight hostages are being held on a series of islands, and your job's to get them out. The task requires clinical precision, expert timing



● Destroy the scenery to find the hostages

and excessive force. Some are held in the open, others are held inside buildings. Rescue requires first that you trash the building and then lower a ladder to whisk them away to safety. Of course the enemy aren't too pleased about you running off with their meal ticket and will try to shoot you down.

Your main armaments are chain guns and rockets which have the power to waste everything you're going to meet in this private little war. The guns have an almost limitless amount of ammunition while your very tight supply of missiles can do some serious damage.

This Oliver Twins blast-em-up extravaganaza is classic Codemasters: not much plot, simple gameplay and very engrossing. The little (and I do mean little) chopper simply has to fly around this mapped world blowing open houses to find hostages. You get shot at and you shoot back, nothing too difficult there at all. Real damage rarely seems to be done to your machine and so the only real restriction is the amount of fuel you can carry.



A hostage is located, now rescue him

You start off at an allied heli base and have to buzz around trying to find where your men may be hidden. There are a series of islands that make up the backbone of some banana republic and once you found them it's time to let a few rounds rip and show them the advantages of a developed technological economy – namely bigger guns!

You find the way by using map grids marked around the screen's border and you'd better brush upon your map reading skills or you'll spend hours wandering around over the sea looking for something to kill. This is actually the most depressing part of the game. You've rescued seven out of the eight and have to spend your last few drops of fuel trying to hunt down that last hostage. It makes finding needles in haystacks look a doddle.

There's no subtlety involved in flying this gunship, no up or down, just forward turn and reverse. The weapons available are machine guns and missiles, each launched separately and aimed with one of those ever popular roving cursors. Bullets take time to destroy things, missiles are more instant but are harder to replace.



● The screen unrolls before the off

Once you spot hostages, diving in to rescue them is pretty tricky. To lower a ladder you've got to be directly over the top and stay stationary, and this makes you rather vulnerable. Not only this but it's darned difficult to bring a moving helicopter to a dead stop over at a precise point. A panel flashes irritating messages at you, winding you up as you try to wind the hostage in.

Once you've rescued someone then you're the option to take them back to base to earn points and extra ammunition. No more fuel is on offer, as this is used instead of a timer. This is the major failing of the game, as the implications are not thought out. While letting hostages down the rope ladder to safety, you lose a lot of time (and therefore fuel) – especially if you hang around for an ammo refill – because you're still a valid target for the opposition. The idea is sound but it means that after some highly enjoyable blasting fun the pace of the game dissolves into tedium while you offload.

You only have the one life, which means the chopper has to be very tough. This allows you just to hang around over a hostage regardless of what forces are on the ground, thus denying the need to develop any real skill. If the game had been built around more lives with less armour and a quicker drop off with less fuel the game would have been far, far better. What could have been a fast, tricky bout of blasting has become a slow and fiddly exercise.

All the other aspects of the game are irreparably harmed and much good work is squandered. The incidental graphics are up to Neil Adamson's usual excellent standard, especially the unfurling of the games screen and the brilliant explosions. A budget game of high quality is not classic Oliver's fare, so *Treasure Island Gunship* won't be following. Which leaves them free to work on more *EGG*citing projects for Christmas... TW

SECOND OPINION

"A great budget game, it has all the usual Olivers trademarks. Not for the 'sophisticated' player, however – but then who needs sophistication when you can blast like this!" PMcD

GREEN SCREEN

Operation Greenship *is still playable*

FIRST DAY TARGET SCORE

60 000 points

The Verdict

GRAPHICS 69%
- □ Colourful playing screen.
- ■ Very small figures.

SONICS 70%
- □ Good intro tune.
- ■ Average chopper effects.

GRAB FACTOR 59%
- ■ Difficult to find people to rescue.

STAYING POWER 73%
- □ Four levels of skill.
- ■ Very slow going in parts.

AA RATING 64%

- □ Good concept...
- ■ ...reasonably executed!



● The weakest of the bunch yet *Eliminator*'s still a quality game.





CHRISTMAS COLLECTION

Hewson● £12.95 cass, £17.95 disk joystick/keys

Do you want frenzied shoot-em-up action, a collection of some the best outer and inner space blasting ever seen on a CPC! Then watch out for the *Christmas Collection* from Hewson, it's a hot one and it's coming this way.

Uridium, Lightforce, Cybernoid II, Eliminator, Exolon and *Hydrofool* are the games, the CPC is the computer and rip snorting fun is the result. Hewson have long enjoyed a reputation as producers of some of the best looking and fiendishly hard games to hit the market. Superstar programmer Raff Cecco and friends have put together some truly mind bending games, and now you can enjoy the best of Hewson with the *Christmas Collection*.

> **SECOND OPINION**
> *"Mathematically CC scores a mighty 80.5% and considering the price this ones a bargain. If you want some slamming space (and sub aqua) fun CC is an opportunity not to be missed!"* SC

Star of the show is *Exolon*, a Cecco classic. Run around a space station encountering all the usual tricks and traps. Infuriatingly difficult it has the trappings of the much later *Stormlord*. The graphic style may have aged a touch but the gameplay's as intense as ever and is guaranteed to have you tearing your hair out trying to solve that next stage.

Cybernoid II, AA39 Mastergame, is a sequel that takes you deep into the heart of a pirate starship. Quick and constant blasting and deft joystick control will see you through this visual extravaganza that threatend to give shoot'em ups a good name. A mould breaker and a joystick snapper of the highest degree.

Uridum and *Lightforce* are two more traditional finger aching shoot outs. Hardcore firepower for those who live to waste countless alien nasties for no other reason than it's fun.

Hydrofool is the wildcard, escaping from the outer space motif and going into the water. You get to explore a strange and puzzling undersea world, all drawn out in three dimensions.

The rotten apple in the barrel is *Eliminator*. A shoot-em-up of sorts, it's just not fast enough to make the grade on its own. Packaged in this sort of company, however, it's more than a welcome filler.

Hewson have been producing quality games since the CPC was a twinkle in Mr Sugar's wallet, which means that any compilation featuring their greatest hits will be great indeed. TW

THE SCORES ON THE DOORS

Cybernoid II	*AA39*	90%	Mastergame
Eliminator	*AA48*	57%	
Exolon	*AA24*	93%	Mastergame
Hydrofool	*AA22*	85%	Rave
Lightforce	*AA15*	90%	Rave
Uridium	*AA37*	68%	

The Verdict

AA RATING 87%

☐ Awesome package, fearsome fun!

THE STORY SO FAR, VOL 4

Elite ● £12.95 cass, £14.95 disk joystick/keys



The second eight bit selection box from Elite brings mixed blessings. The chance to get to grips with *Aliens* is welcome as one of the best movie licences of all time as you chase those ectomorphs around. The rest let Ripley and Co. down rather badly.

The other five are OK, but they don't grab you by the joystick port crying play me. As a gift it wouldn't go amiss, but as a pressie buy ask Santa for something else.

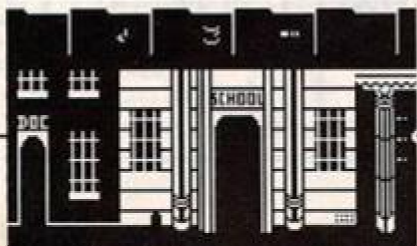
Wonder Boy's a running, jumping platform game and adds nothing to the genre (it's soon to spawn a sequel). *Ghostbusters* (the follow up to this baby will be haunting us at Christmas as well) has you gunning down naughty spooks. *The Eidolon* takes you time travelling in a deserted old house and *Back to the Future* follows the plot of the film,

> **SECOND OPINION**
> *"As a history lesson this is fine, but as contemporary entertainment forget it. Aliens is still brilliant but the others just don't support it. If you're looking for compilation fun from Elite get Volume II instead."* SC

but does so with graphics so inept it's hard to believe. But you've got to look on the bright side, there could be a sequel to this on the way too!

The package offers no real support to its leader, more an excuse to fill blank tape than make serious games. Some games stand the test of time and *Aliens* is one of them. Strangely they were all reasonable successes in their day despite critical hammering, so they may sell on nostalgia value alone. "The first game I ever played was... TW

● It's back to school in *Back to the Future*



THE HARD FACTS

Aliens	*AA17*	90%	Rave
Back to the Future	Not reviewed		
The Eidolon	*AA2*	68%	
Ghostbusters	*AA1*	52%	
Quartet	*AA24*	38%	
Wonder Boy	*AA24*	68%	

The Verdict

AA RATING 76%

■ A bundle of games is only as strong as it's weakest game, and *Quartet* is really quite dire.

PAPERBOY

Encore • £2.99 cass, joystick/keys



One of the most off-beat and amusing arcades ever to hit the streets, *Paperboy* makes a welcome return to your CPC, courtesy of Encore. Your job is to guide a *Paperboy* around his neighbourhood delivering papers. Points are earned by correct deliveries, smashing the windows of those who aren't on your round and avoiding hazards such as the 'Biffa Bacon' bully.

Graphically the arcade accuracy is outstanding but the lack of music makes the whole game feel hollow. There's only one route to follow but the variation of people and obstacles you can meet, make this more than a challenge. TW

The Verdict

GRAPHICS 69%
□ Colourful characters.

SONICS 00%
■ Silence is boring!

GRAB FACTOR 83%
□ Arcade magic.

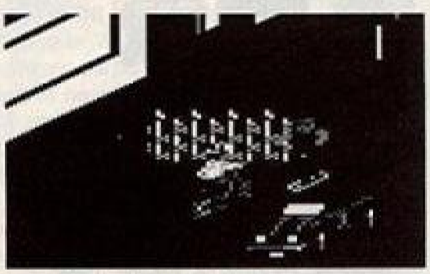
STAYING POWER .76%
■ Only the one route!

AA RATING 74%

□ Outstanding budget release

SECOND OPINION

Great game that has aged well, but Trenton was right about the music. There's just no atmosphere. SC



● Get on your bike in Paperboy

THUNDERCATS

Encore • £2.99 cass, joystick/keys

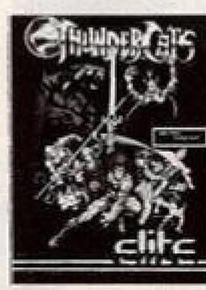
See the cartoon, play with the toys, eat the crisps and now another chance to play the game. A fast paced hack 'n' slash jamboree *Thundercats* is head and shoulders above most other cartoon/computer cross overs. As Lion-O you are in search of the eye of Thundera, a jewelled sword sacred to the *Thundercats*.

This little trinket has been tea leafed by Mumm-ra and his Molemen. Getting it back involves crossing fourteen very varied levels of high speed monster mashing and trap dodging. Lion-O runs along a horizontally scrolling corridor jumping and ducking objects and enemies. There are bonus weapons to collect and a whole host of monsters to kill. Three sub-games bring in the rest of the team who have to be rescued – Tygra, Wilykit and Panthro.

Digitised pictures, parallax scrolling and great music boost up this already strong game. The only draw back being the graphic's obvious Spectrum origins. Still, they move well and the pace soon has you ignoring these limitations and concentrating on survival. It's simply the best budget on offer. TW

SECOND OPINION

Well it's not that good. A highly playable yet essentially simple game that will have you coming back time and time again. Outstanding incidental graphics well worth the long loading time. SC





● Lion-o roars into action

The Verdict

GRAPHICS 85%
□ Digitised pictures.

SONICS 60%
■ Title tunes are OK.

GRAB FACTOR ..90%
□ Gets very tough, very quickly.

STAYING POWER 86%
□ 14 levels to chop it up on.

AA RATING 86%

□ The best of the cartoon spin offs

MONTY ON THE RUN

Kixx• £2.99 cass, joystick/keys



I feel like a spoilt child at someone else's birthday party, but it's got to be said, *Monty On the Run* stinks! Somehow this game won a place in the hearts of millions of CPC owners the world over. It may have inspired games like *Dizzy* but historical interest does not a good game make!

A 49 screen complex has to be explored by this most loathable of moles. As he finds his way around he is attacked by fearsome beasts such as teapots! The graphics are laughably dated and only the music helps pull it out of the mire of complete farce. An average game in its day, an appalling game now. TW

SECOND OPINION

Now I really liked this first time round and I think it still has some magic. So it's no the great shakes as a looker, but it's still fun to play PMcD

The Verdict

GRAPHICS 25%
■ Graphics show their age

SONICS 73%
□ Nice muzak.

GRAB FACTOR ...56%
■ Trial and error gameplay kills interest.

STAYING POWER 49%
■ Only 49 screens!

AA RATING 37%

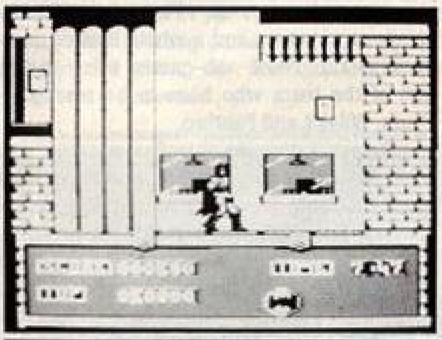
■ Once a classic (?) now a museum piece

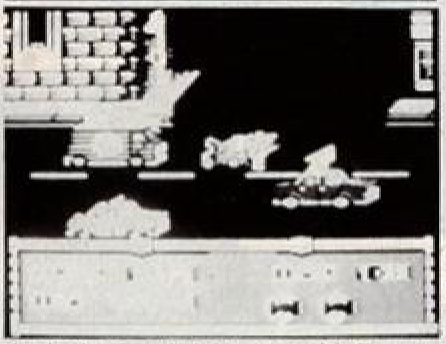
PREVIEWS

Christmas is coming, and your wallet's getting fat – or it is if you're a software house. Trenton Webb sizes up which games will bring in the gravy, and which will just get the stuffing...

The big guns are out, staking their claim on your Christmas cash. Ocean was the first to announce its seasonal line-up and it looks to be one of the strongest bands of titles ever seen in the computer market.

They tee off with *Batman*, the movie licence to end all movie licences. Launched on





the back of a slightly successful film, the caped crusader makes his third appearance on the CPC.

This time the story is based around the movie, following Batty as he tracks down the evil Joker. The trail leads you through the chemicals warehouse to the final climatic battles. You even get a chance to race the Batmobile and Batwing through the streets of Gotham City. The scenes involving the vehicles look particularly impressive as the hyped-up and supercharged craft career around the city centre. The Batmobile even has a grappling hook for taking sharp corners!

The Untouchables, another film tie in, is ready after nearly a year's continuous work. It is seen by Ocean boss Gary Bracey as one of the most gameplay-intensive of any of the CPC releases this Christmas. The style of presentation varies from a stand-up shoot-out (the rooftop battle) and more traditional overhead views.

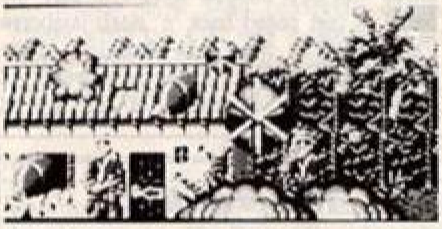
Interpretation of scenes from the film , particularly the gunfight at Chicago's Central Station, is most original. Elliot Ness, for it is



he, has to kill the bad guys and shepherd a baby's pram through the crossfire. This was one of the most stylised shoot-outs seen in years, and is well captured for the computer.

Number One with a bullet

Operation Wolf, a previous krimbo number one, has a direct relative battling for glory this year too – *Operation Thunderbolt* For those



who haven't seen the arcade game, it's a stand and shoot '*wolf*' type game but with two players for extra blasting fun. The arcade version showed distinct signs of being a rush job – look how easy life became when you bought the laser sighting! – just to cash in on the success of *Wolfie*.

The Ocean programmers feel they've ironed out these problems and improved the gameplay beyond measure, to the level it should have been in the arcades. Ultra-violent two-player action and gameplay! What more could a CPC'er ask for?"

Chase HQ looks set for the toughest time,



facing some heavy duty competition from the other big boys. A police pursuit arcade, this conversion has to out-drive a whole rally of other car games: *Out Run Turbo* from US Gold, *Power Drift* by Activision, *Hard Driving* by Domark and of course *Continental Circus* by Virgin Games, which sets a pace the others will have to follow.

Dangerous Liasons

Activision has found a well 'ard mallard, in the shape of *Dynamite Dux*. It may sound duff



but don't judge a book by its cover, because it looks like being a riot. The code was written by Core Design – the team which produced the chart-topping *Rick Dangerous* – so you know that it's going to be something a little different and a little special.

You guide Bin, a duck with a grudge, in search of his kidnapped owner. The brave little dinner-in-waiting gets his wings on all manner of toys, including a rocket launcher and water cannon! The full review will be here next month, so get the orange sauce and flak jacket ready.

Wait until you're spooken two!

Ghostbusters II , the hit comedy from the states will be opening for business here on





the 1st December. The game will be launched simultaneously with the film and could be one of the year's biggies! So far we've only seen screen shots, but the prospects look good.

The conversion is being done by the Foursfield team, which did *Incredible Shrinking Sphere* and *Timescanner*. The game will be four arcade-style scenarios based on the best bits of the film, especially stressing the comedy.

Big Game Hunting

Christmas '89 could be a watershed for the software market in the UK. Last year a whole host of companies got bloody noses fighting for the top chart slot. This year a strange modesty seems to be gripping the purveyors of software throughout the land.

"This year we're not going for a Christmas number one, because really, it's only the magazines that are interested" was US Gold's comment on the Christmas state of play. "Everybody would like a number one, but it isn't necessary for a good market share. Last year it was *Thunderblade*, we even advertised on TV and radio. We made it to number five and still exceeded our sales targets".

All a 'drift!

Activision too was avoiding an advance claim on the number one spot with its hotly-tipped *Powerdrift* conversion. "There's always a kudos with the number one, but it's a peak time and you can make tremendous sales!". *PRspeak* for 'we'll boast if it happens but we're more cautious since *Robocop* shot down *Afterburner*'. Like last year, *all* the big guns are licences, following the age old formula: Christmas + Arcade/Film titles = Big Bucks.

"You have to have a big name out for Christmas if you're serious about the business" a Virgin Games spokesperson affirmed. Ocean similarly shows faith in buying ready-made success from the arcades and cinemas. Its recently unveiled winter line-up consists of *Chase HQ*, *Batman*, *Operation Thunderbolt* and *The Untouchables*.

Why are licences so essential? Domark cited this example " If they (the consumer) see a name like*Pictionary* or *Trivial Pursuit*, *Hard Driving* or *Robocop* it's something they recognise and will buy".

GRANNIES AND VIRGINS

What makes Christmas interesting though is the strange and unpredictable influx of consumers. There is the apparently random 'Granny Factor', where software is bought as a gift from an uninformed standpoint. There are the 'Software Virgins' who get a first computer for Christmas. With no games buying history, their software purchases are likely to be heavily influenced by advertisements. The trend of gift vouchers and money as presents also injects a healthy wad of dosh into the market which gives the consumer power to buy more software, allowing a more experimental or frivolous choice.

Here lies the rub for software producers, the market is unnaturally unpredictable with the continual evolution of machines and coding quality. The popularity of licences is a gamble because a good title costs good money and lots of it. A top arcade licence can cost a soft warehouse around £200,000 and a big-name movie £50,000. When these costs are coupled with investment in development and the advertising (a double colour page in a market leader costs around £2,000) to give the launch impetus, a game has to hit just to cover the initial investment. The risks are now too high for an all-out hype war because while winning has rewards the penalty for failure is too daunting to consider. What's more, with the current threat to home micro versions of arcades hits from the console boys, this could be the last of the salad days and apparently easy Christmas money.

The software industry has, over the last year, grown to meet the needs of a more mature market. A huge ad' campaign is no longer enough and the success of a game is dependent of a myriad of influences for it to sell well and quickly enough to leap into the number one slot. With games costing up to £20, who can blame the public for caution and relying upon reviews and word of mouth before buying a product? Don't believe the hype!

PUBLIC POWER

The public are at last beginning to gain some respect as discerning consumers, intolerant of insults like *Out Run*. Advertised brilliantly, the game generated immense interest and pre release sales, but the resulting product was truly dire, sharing none of the magic of its arcade parent.

"A few years back software companies – ourselves included – bought strong licences and just turned out games relying on the strength of the title to sell. Now we're buying licences for film and arcades and turning out quality products that back them up" was Ocean's response – the company proved the point with the 'game of the year' and Christmas number one *Operation Wolf* plus the record breaking *Robocop*.

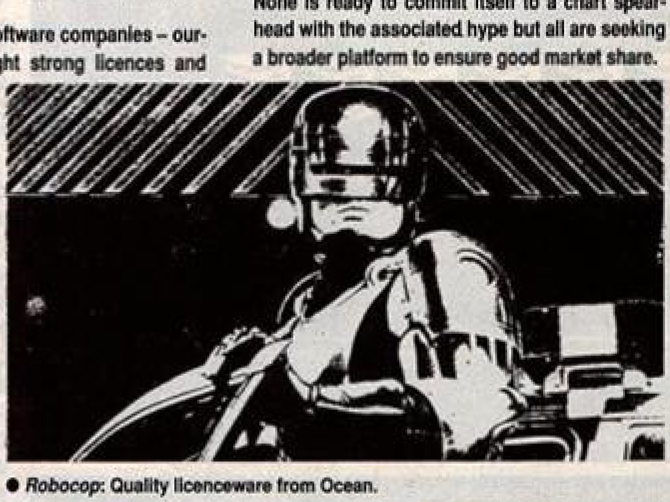


● *Out Run*: Hyped to death. "A licence won't sell if the code is rubbish" US Gold says now.

With so many conversions flooding the marketplace a title alone no longer guarantees success – the conversion has to be convincing as US Gold was the first to acknowledge. "A licence won't sell if the code is rubbish".

But what of original games – is Christmas a graveyard for an 'unknown' commodity? "If you go don't go for a licence you can still do good business, but over a longer period. Who heard anything of *Afterburner* or *Operation Wolf* two weeks after Christmas?" was the opinion of Microprose. Non-licence products may not have the same immediate impact but do enjoy (if they're any good) longevity and suffer less from the hype today forgotten tomorrow syndrome.

The major difference this year is that none of the big houses will be pushing a single product. None is ready to commit itself to a chart spearhead with the associated hype but all are seeking a broader platform to ensure good market share.



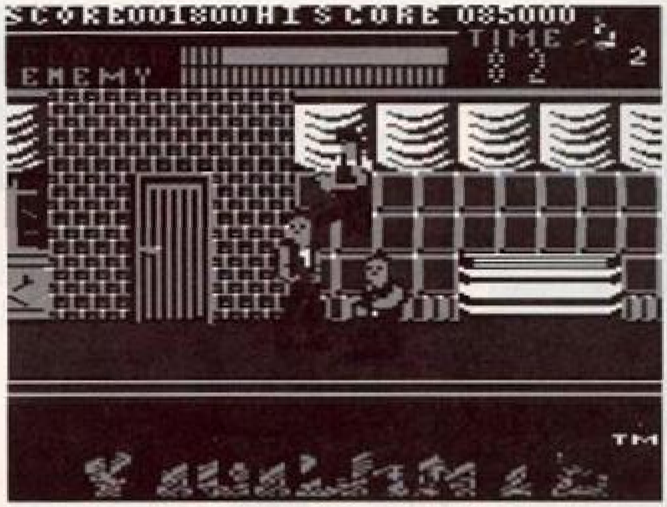
● *Robocop*: Quality licenceware from Ocean.

VIGILANTE

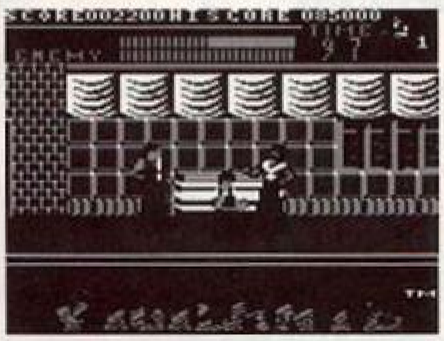
US Gold ● £9.99 cass, £14.99 disk joystick/keys

The sound of a breaking bottle shatters the chill night air. The street punk glances nervously about, worried about who – or what – is in the alley with him. A sickening thud accompanies a fist driven into his face... the *Vigilante* has struck, and smiles as he delivers a few more quick blows to disable his opponent. They've taken his lady hostage, they've made her suffer, now it's their turn!

It's the usual sad and sorry tale of a thug whose girlfriend has been taken by force. He finds out, gets all worked up and swears revenge (*yawn*). The gang have to be tracked to their hideout and battles ensue en route (*double yawn*). The villains are very sporting about the whole thing, though, standing in line waiting to be beaten up, not piling on at the first opportunity (*ZZZzzzzz*). After a number of levels and remarkably similar battles the good guy wins and gets his lady back (*boredom coma*).



● That well-known karate move – flying kick to the left earole.



● Trading punches to the kneecap with pokes in the eye...

Vigilante promises little and unfortunately delivers in terms of game mechanics. Fighting games are traditionally short on plot, lacking in gameplay but strong in a more indefinable way, making them incredibly addictive fare. Maybe there's some deep rooted need in all gamesplayers to belt people in the mush!

The *Vigilante* is a man with a mission, but a limited vocabulary in body language. He has to waddle along a horizontally scrolling cityscape killing the street punks who descend upon him in ones and twos, not the pack of wild dogs you'd imagine. There are distinct types of punk and each will attack in a certain fashion and survive a set number of clean blows – the ginger haired 'Jimmy' clones punch to the head but collapse after one good shot, for example.

SECOND OPINION

Too easy by far. A game needs to test you not relax you. I finished it the first time I played – and answered the telephone in the middle of the game! There's nothing wrong with Vigilante but nothing right either! Like a Chinese meal, play this game now and twenty minutes later you want to have another one!

PbM

GREEN SCREEN

Some scenes are invisible

The fighting is static; you simply stand there and trade blows until someone falls down. You can't duck out without taking vast numbers of knees to the nose and you are unable to spring about and attack on the sly from the back. The only choice is which kick/punch do you want to use next. The *Vigilante* calls the shots because the evil bikers just stand there while some show-off puts his foot in their face!



● One more baddie bites the dust.

The game is made difficult in two noticeable respects. Firstly there is a time limit which, while not tight, still forces you to push forward and gain ground whenever possible. Secondly, because of the mad gunman who sporadically pops into play and shoots more than his mouth off.

Other than these two forces you can and should do well, and quickly finish the game.

Vigilante himself has a very noticeable resemblance to the *Target Renegade* bod, but without the twin brother. The sprites are large, blocky and on the whole don't move that well. There are exceptions, especially with the leader of the level two gang. He does a really neat back-flip, but the surprising thing is that he's over eight feet tall.

There should be nothing to drag you back to *Vigilante* once you've played. The graphics, hard to see on a colour screen, are all but invisible on green. The game is unoriginal and tedious, the music just managing to be mediocre. Yet *Vigilante* manages, by some miracle, to have that addictive quality only the ropiest of games possess. With *Vigilante* it's the idea, the knowledge, that not only can you win but you should win that drags you back time and time again.

TW

FIRST DAY TARGET SCORE

Finish the game.

The Verdict

GRAPHICS 30%

☐ They're there, and they all work...
■ ...just!

SONICS 30%

☐ Average sound effects.

GRAB FACTOR 82%

☐ It's so easy to play you'll be hooked immediately.

STAYING POWER 22%

■ It's so easy you'll finish it in no time.

AA RATING 63%

☐ The game you'll go for when you feel mean and want to make someone else suffer.

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Crane Crawl	You're the foreman in the local widget factory and have been accidentally locked in overnight. What's worse the machinery seems to have a mind of its own, and has definitely got it in for you. Will you see the night out?
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Guitar Companion	If you have a Guitar, this is the program for you. It shows you how to play 48 different chords – and it helps you tune your guitar too!
Jet Pack Santa	Help Santa to deliver his presents while avoiding all the aliens and obstacles. Fast action arcade-game with many different levels.
Keylist	A handy utility to list all your function key definitions.
Leaper	Guide the frogs to safety across the road and river, avoiding the perils of being run over or drowning. Nicely presented version of the popular favourite.
Life	The old classic. Create your own life forms and watch them evolve.
Master Mind	An oldy but a goody. Designed to illustrate the power of the Procedures utility.
Motor Mower	You've bought a new motor mower for your overgrown garden. But can you cut all the grass without running into the flower beds, rocks and walls?
Munchies	3D Action at its best. Can you fill in all the squares before the munchies get you? And if you do will you survive the next level? ... and the next?
Othello	Hard to beat version of the old favourite, featuring two difficulty levels.
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Tiles	Another must for puzzle addicts. 6 beautifully designed screens are scrambled. Can you restore them to their original state?
Whist	A well-designed and hard-to-beat version of the 9 card game of trumps
Zareba	An extensive arcade adventure which, if it doesn't damage your brain, will certainly leave your joystick in a sorrier state!

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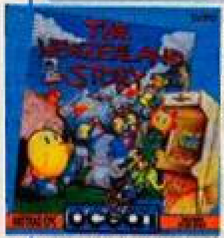
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THE NEW ZEALAND STORY

Ocean ● £9.99 cass, £14.99 disk joystick/keys



Tiki Kiwi has a problem: his pals have been invited to tea by Wally Walrus – as the main course!

Without further ado, the flightless New Zealander sets out on a rescue mission. Armed only with a bow and arrow, he enters Wally's domain intent on thwarting his evil plans and getting his friends back to the safety of Auckland zoo. Wally Walrus has his caverns well guarded, however, with his cronies ranging from boomerang-wielding aborigines to blood sucking bats.

So Tiki sets off jumping onto platforms, over walls, and generally flattening the opposition. He reaches a cage, opens it, and the first Kiwi is free! Only 19 more to go.



● Coming up for air after a quick dip

weapon instead of fruit which can be collected for even better firepower. Some baddies are on balloons, which can be hijacked and used to get to difficult sections. There are underwater scenes where Tiki dons a swimsuit and must keep re-surfacing for oxygen.

SECOND OPINION

"Going for the cutesy vote is fine, so long as you hit the mark. NZS quite simply doesn't, because the graphics are so poor. Rather a pity, but there it is." SC

GREEN SCREEN

No better, and no worse



● Battling a big baddie

The New Zealand Story is an immensely playable platform game, having that undefined quality that keeps you coming back for more. The action is fast and furious, each level having a time limit which counts down to the appearance on an invincible dragon – so there's no time to hang around. Collision with most nasties doesn't actually kill you, but they are all armed with a variety of missiles, which most certainly do.

Occasionally, a creature drops a





● About to free your first kiwi

Weighed down under

The Kiwi, a flightless bird found only in New Zealand, is a relative of the now extinct Moa. It lays the largest egg relative to body size: the bird is about the size of a chicken, while the egg is about a pound in weight. Hence the extraordinary noise made during laying.

The Kiwi is New Zealand's national emblem, and it is a little known fact that a sports team is not allowed to congregate unless it has the word "Kiwis" somewhere in its title.



Everything fits together well to make the gameplay spot on. The continuous background instantly hummable tune is cute enough to make your toes curl (Stock & Co could get half a dozen number ones out of it – it really is that bad!). Spot sound effects are fairly basic.

The thing that lets the game down badly, however, is its abysmal graphics, which are ill-defined and blocky. Some have a tendency to merge in with the background, making them difficult to spot. The arcade machine's great attraction was its cuteness, and this has not come across on the CPC. Sad to say, poor graphics spoil what would otherwise be an excellent game. AW

FIRST DAY TARGET SCORE

70,000 points

The Verdict

GRAPHICS 20%
- ■ The CPC is capable of much better.

SONICS 60%
- □ Cute, sugarsweet tune...
- ■ ... that drives you mad very soon!

GRAB FACTOR 70%
- □ Easy to get going, and you'll want to keep going, too.

STAYING POWER ... 88%
- □ 20 progressive screens.

AA RATING 65%
- □ Nice game, shame about the graphics.

BALROG

What's this – no Pilgrim? Alas no, for he has fled, as would we all, in

It's true. The Pilgrim is departed for ever. But in his place is Balrog, a new and fearless adventurer, who will tread where no others dare...

Avon out soon!

Software house Topologika will very soon be releasing its new game *Avon* to hordes of eager CPC owners.

Described as "a Shakespearean tragedy of our time..." Avon could perhaps be called *The Bards Tale*! Disk-based with on-line help, it will, as with all Topologika's games have no examine command.

The Pilgrim complained regularly about this omission, but Balrog will give you his own judgement next month...



Hint book sale

Following last month's story on Infocom titles, Castle Computers got straight on the phone to say that not only is it the sole remaining supplier of Infocom games for the CPC, it has managed to get hold of loads of Infocom hint books. These are:

Wishbringer, Deadline, Witness, Seastalker, Lurking Horror/Station Fall*, Starcross, Spellbreaker, Planetfall, Cuthroats, Suspended, Ballyhoo, Moonmist, Enchanter, Plundered Hearts/ Beyond Zork*, Infidel, Hitch Hikers Guide to the Galaxy, Sorcerer, Mind Forever Voyaging, Suspect, Zork 3, Beaurocracy/ Hollywood Hijinks*. (Items marked * are double-packs.)

The normal RRP of these books is £6.99, but while stocks last Castle Computers is offering them at £3.99 each. Ring 0782 575043 to check for availability.

Level 9 to drop the 8-bits!

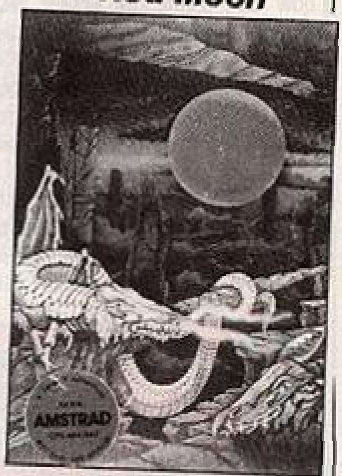
Level 9 – author of over 15 top-selling adventures since its inception in 1981 – has announced that its latest release, *Scapeghost*, is to be its last.

Designer Pete Austin explains the decision of the company – responsible for such classics as *Red Moon, Return to Eden* and *Gnome Ranger* – to quit the 8-bit scene:

"People have been declaring the death of the adventure market for years, so *Scapeghost* is an appropriate final release"

Level 9 has in fact developed a new 16-bit only development system, and will not produce any more Amstrad games as "the 16-bit machines sell more games".

Red Moon



Level 9 Computing



● The Austins: abandoning the 8-bit.

Bad news indeed for all CPC adventurers. Balrog demanded to know if there was any way Pete would change his mind

"...only if *Scapeghost* sells more than we expect..."

Apparently the 8 bit conversions of *Lancelot* and *Ingrid's Back* have sold poorly compared to the Amiga and ST versions. Level 9's new 16-bit only system will be much more arcade orientated, with joystick and mouse control.

Balrog is glad not to be in their shoes at the PC Show!

Another adventure creator!

Good news for all you adventure writers out there – another (yes, *another*) adventure writer has been released for the CPC.

It's called *Adlan* and is produced by Graduate Software (the guys who put CPM on ROM). Adlan's specs certainly sound very impressive, being ROM-based with adventures available on cassette and disk format, the disk format using graphics which load from disk and can be drawn on any art package.

At the moment other details such as price are uncertain but *Adlan* should be out soon...

This means that the CPC now has more commercial adventure creators than any other machine (*GAC, Quill, PAW, Genesis* – and now *Adlan*).

Stand by for the full review of all the creators soon.

Clue pot

Thanks to Howard Swains, Joan Pancott, Jerome Young and Sue Isley for these tips. If you've got any hints and tips you want to pass on to your fellow adventurers, write to Balrog, Amstrad Action, 4 Queen Street, Bath BA1 1EJ.

The Big Sleaze

In Part One you can drive to the bank, police station, Joe's Diner, Imrahd Street, 21st Street. Make sure you examine the car before getting in.

Return to Eden

To get past the fence, play stalk and twigs to the ants and they will follow you to the fence where they will then break it down.

The Cherry is a grenade which is needed in the minefield.

Lurking Horror

The glass wall in the computer room is a red herring. There is no disk for the prof's computer.

Hitchhikers Guide to the Galaxy

Feed the sandwich to the dog to avoid it eating the miniature space fleet. Put the junk mail on the satchel to avoid the top-half-of-the-room-robot pinching the Babel Fish in mid air.

The Hobbit

Big Cavern in Goblin's Dungeon, d, wait until the Goblin appears, N, SE, E, get ring, wear ring, (you need to repeat this every few moves as the ring comes off), NW, N, d, E, open crack, up, S, W, W to Beorn's House.

Heroes of Karn

To pass the hot ashes put water on them.

To kill the knight throw acid at him.

Wolfman

Have a look in the mirror, wash your hands and face. Don't forget to put on a new tunic and burn any other clothes. Get a key from the locksmiths. Move the board in the chapel, try pushing the key on the cabinet. Close your eyes at the riverbank – although you can't do it first time just keep doing it. Water the weed. Go away until the weed turns to a blue bloom – then smell it and go to the grave.

HELP!

- H Higgs is stuck in *Top Secret* – "I have passed the dogs and climbed the fence, knocked out the guard in the jeep, what do I do next?"
- Mr. Unrecognizable Signature is having problems in *Kobyashi Naru*, the problem being that when they enter one of the Portholes they die have to quit.

If you can help these lost souls write to Balrog and he will print the answer next month.

CONTACTING BALROG

Balrog welcomes correspondence from all matters adventorial. Contributions to the Clue Pot and peeks and pokes are particularly welcome.

Unfortunately, it's usually impossible for Balrog to pen personal replies to letters, but rest assured that he will do his best to answer your queries via this column.

This month the postbag was decidedly empty – so put quill to parchment, pen to paper or finger to keypad and write. NOW!

Address your mail to Balrog, *Amstrad Action*, 4 Queen Street, Bath BA1 1EJ.



The Lords and Ladies of Adventure

The Lords and Ladies are all experts of adventuring. Each offers a list of adventures they have solved. If you need help with any of these you can write to the addresses given – don't forget to enclose an SAE.

Hitchhikers Guide to the Galaxy ● Leather Goddesses of Phobos ● Lurking Horror ● Moonmist

Ken Dean, 63 Elmhurst Avenue, Oulton Broad, Lowestoft, Suffolk, NR32 3AR

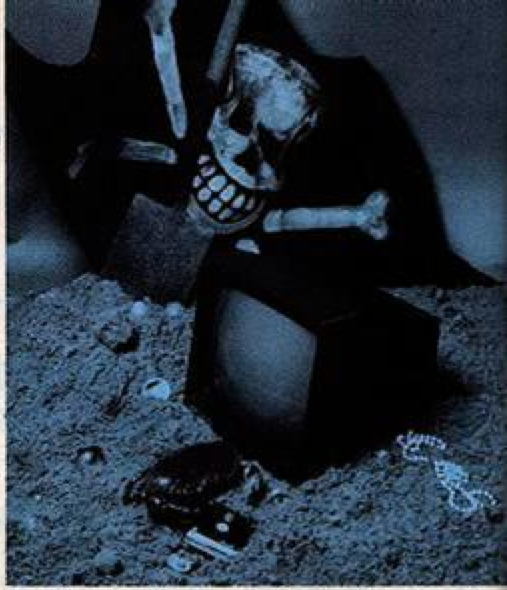
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Debby Howard, 10 Overton Road, Abbey Wood, London, SE2 9SD

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Joan Pancott, 78 Radipole Lane, Weymouth, Dorset, DT4 9RS. Tel (0305) 784155 Any day – 1pm to 10pm.

The Unknown Treasure



£1.99 cass. ● David Gibbon ● 77 Quarry Crescent, Bearpark, Co. Durham, DH7 7DR

As well as all the 'professional' adventures released on the CPC Balrog will, where possible, be reviewing smaller companies' games. Most of these games are produced on *GAC*. Some are actually much more enjoyable – and cheaper – than their commercial counterparts.

Unfortunately, the Unknown Treasure is not one of them Actually, it's not so much that it's *bad*, it's just not one of those *GAC* games that stands out from the crowd.

The game is well enough written, with an alternative character set as used by Sandra Sharkey in her *Case of the Mixed up Shymer*, but the real test of a game is in the playing and this is the *Unknown Treasure's* failing.

Firstly, the plot is very poor and secondly, the description of objects is inadequate. A spade proves to be "a garden spade", and some objects have no description at all. If the examine command is used just to pad out the game by giving such short responses as it is in *TUT* then Balrog must agree with Brian Kerslake of Topologika in that the examine command should not be implemented at all.

The ability to examine objects is useful not just for learning their purpose – it also adds valuable atmosphere.

The room descriptions are scanty, there are a couple of spelling mistakes and, what most annoyed Balrog was the overuse of the word 'big'. There is a big stair, big kitchen, big cave, big green road, big passage etc. Another couple of very annoying features in the game include a location 'by a big cottage' – you can examine the cottage all you like as you trying to enter it, and opening doors has no effect at all. In fact, you must "Jump through window", and there is no clue in the game relating to this.

But *TUT* does have a couple of redeeming features! First there is a large number of locations (72 - which is, as the author would say, BIG! for a *GAC* game). This possibly explains the lack of decent text – all the memory has been used on the graphics and multiple room descriptions and not enough on parser and messages.

The author has also included a SKILL command for prolonging the life of the game. SKILL allows you to change the number of objects you can carry – thus skill eleven allows you to carry eleven objects. So after completing the game with skill eleven you can try again with a lower, and thus harder, value.

Balrog doesn't not know the age of the author but the co-writer is nine years old. If David is also this age then Balrog is very impressed with his effort, but feel that he has bitten of more than he can chew in creating his first game so large.

Balrog does, however, look forward to seeing David's future games.

Atmosphere	30%
Interaction	24%
Challenge	36%
AA Rating	30%

INTER-ACTION CALLING!

Adventurers, RPGers and computer strategists are usually in need of solace or help (often in more ways than one), so to put an end to their misery and give them a reason to live *Inter-Action* has created a team of four really quite helpful people... but Boy Scouts they ain't.

1) The Harlequin (he made them put his name first – having a blaster shoved up their noses was a darned good incentive)
2) Rob Steel (a nice chappie who's played more adventures than anybody in this room)
3) Auntie Marg (she's about two sandwiches short of a full picnic but plays strategy like a good 'un – and she brings the biscuits)
4) Nik Wild (he's the one with the money, equipment, premises and good looks – and he wrote the press release)

Three of the team are ex-Newsfield writers, so you can expect a professional set-up all round. The association is basically for adventure, RPG and computer strategy players, and £15 a month gets you a 12-month membership to Inter-Action. For your money you get:

- Six bi-monthly A5 dossiers called Harlequin and Steel containing news, previews, reviews, hints, maps, gossip, interviews and features – produced using DTP.
- Access to a telephone helpline open between 17.00 and 19.00, Monday to Friday.
- Plus an intermediate newsletter to keep members up to date with all the latest happenings.

Inter-Action also hopes to include sections on writing home-grown adventures and perhaps a smattering of PBM, depending on demand.

For further information about *Inter-Action*, call Nik Wild on 0584 74 250 or write to *Inter-Action*, The Cottage, Ashford Carbonell, Ludlow, Shropshire SY8 4DB.

Clubbing together

Do you run an adventure club? Or are you a member of one? If so, Balrog wants to hear from you – drop me a line telling me all about the services offered, how much (if anything) they cost, how many members there are etc. Balrog will soon be doing a round-up of all the adventure clubs out there, so write now!

Bards Tale Club

You may have seen the *Elite* Club elsewhere in *AA*, but Balrog reckons a *Bards Tale* Club is a much better idea as the game is over eight times as large (330K versus 42K) and better. So, if you want to become a Bardist, write to Balrog and join the *real Elite*!

JUST FOR LAUGHS

Thanks to Howard Swains again for his selection of amusing retorts from adventures. Anyone else out there had encounters which tickle their funny bones? Then send them in...

- Big Sleaze – Kiss the secretary.
- Enchanter – Cast Kulcad on anything slightly magical. Give something to the adventurer after he has said "Hello Sailor" (*steady on – ed*).
- Stationfall – Try firing the gun at Floyd. Look behind the tumble dryer. Try hugging and kissing Floyd.

25% or more off all non-budget software RRP

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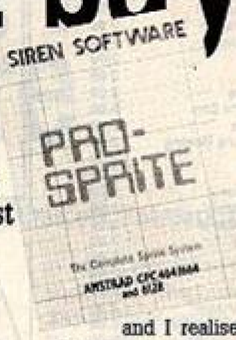
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Simon says...



Meet Siren Software's Simon Cobb on his home territory in Manchester and you realise you may be talking to the CPC's most ardent supporter.

STEVE CAREY took notes and tried to keep up.

Mention Siren Software to anyone who knows the CPC and they'll tell you, "Oh yeah, the disk drive people." And they'd be right, for Siren's is the longest and, I'd guess, the best-selling second drive around.

But Siren must also take the credit for supplying so many of us with the indispensable *Discology;* the games player's second favourite accessory the Soundblaster (favourite? Joystick, of course!); and *Microdesign,* one of the few home DTP programs for the Amstrad worthy of the name.



● Siren Software: the company behind *Discology, Soundblaster* and *Micro Design,* as well as the ubiquitous drives.

In the beginning

Siren came into existence in 1985 when a disgruntled Ocean games programmer by the name of Simon Cobb started selling a tape copying utility through the small ads of various computer publications and found he could barely keep up with demand.

So Simon served his notice and began work on a variety of software projects such as *Discovery, Discovery Plus, X Basic* ("a cracking good program," he says, modestly: "we sold just hundreds of that one").

"We also did a sprite thing which was, well, mediocre," he recalls with disarming honesty. "People weren't interested, though, and I realised they just wanted was just copiers. We were selling, well, not as many as we could duplicate exactly, but just loads and loads.

"So we kept doing updates, and people kept phoning up wanting particular protection systems busted. I got tired of that.

> **"The CPC is a great machine and anyone thinking of upgrading it should consider their reasons very carefully for doing so. It's still got plenty of life left in it, and still has a multitude of uses it can be put to."**

"So I did *Microdesign,* which was very popular. It's still used in professional environments. Schoolteachers use it. One guy uses it to design medical equipment. He bought it at one show, and at a later show he came up and told us how highly he rated it and what he could do with it.



"Then we did a mouse to go with *Microdesign.* Eventually we moved into hardware. To be honest I got bored with software. Everything on the Amstrad seems to have been already, really! It's like, what do you do next?"



● Cobb: aiming for the professionals

What he did next was disk drives – hundreds and hundreds of them. It is evidently a very different market, in which the customers are not the hobbyists who buy tape copying utilities, but "dentists, doctors, colleges, advertising agencies – a whole lot of places. Even the Ministry of Defence has bought a few!"

Professionals' choice

But surely the professionals go for the big PC machines, don't they? In the main they do, but perhaps if they'd listened to Simon singing the praises of the humble CPC first they might think differently. "When you think about it the Amstrad is a cracking machine. I use it to run my office. I had a PC, but I just didn't find it could do anything the CPC couldn't. We keep all the orders on one disk drive, with all our *Tasword* files on one disk, it's just as good as anything else.

"As you see we have an ST over there and an Amiga, but they never get used for anything but games and testing disk drives! We do the Soundblaster for the Amiga, and the disk drive for the ST. I bought the ST with the intention of doing everything I did with the CPC, but when you look at the cost of software... *Protext* on the CPC is what, £30. Do you know how much it is on the ST? £100!"

Simon believes that the CPC's future lies in the professional environment, as a word processor and a machine to run serious software, but a machine that can also run games. "Because there's not that much new software and perhaps existing titles aren't selling in such big numbers, people assume the machine's past it. But just because there aren't that many new CPCs being sold doesn't mean no-one's using it!" ●

I want to hold your hand

"We find lots of people buying their CPC secondhand, and it actually's a pain, because we get them phoning us up for instruction manuals. And with piracy being like it is, it's very difficult for us just to send out manuals.

"So we ask people to send in the original disk – we can tell if it is original, by the way! – and then return it to them with a manual.

"The other thing which happens is people ring us up for advice: they've just bought their Amstrad, either new or secondhand, and don't know the first thing about it, and want us to tell them everything!"

Driving reign

"We get our disk drive mechanisms from Japan; have the cases made by a sheet metal company in Oldham; put in a voltage regulator, add the cable and slide on the casing.

"Then we test them, obviously, and they're ready to go out with a power supply, operating sytem and instructions. When you see one stripped, you realise there's just so little that can go wrong with it.

"Last year we started building up the advertising in November, and it was moving nice and steadily at first. Then towards Christmas it was getting just so hectic we couldn't keep up – we had to order more cases about three weeks before Christmas.

"When we're busy we can sell 200 a month – that's on ST as well, but that's about 60% on Amstrad.

"Most people come to us from the ads, but many also come from friends. We get a surprising number from abroad – probably more than UK orders, especially France, but also from other countries... loads to Australia, for instance. We've even had orders from Iceland and Japan, of all places!"

First Edition

A picture, so they say, is worth a thousand words. ADAM PETERS continues his guide to DIY publishing on the CPC with the art of illustration...

Turn back to the front of this issue of *AA* and flick through it from cover to cover, scanning each page. Well go on then, I'll wait for you. Done it? Right, now flick through it again imagining away all the photographs, cartoons, screen shots and diagrams.

There are two important things this activity should have shown you, other than the fact that *AA* is absolutely brill (used notes in mixed denominations please). Firstly, the use of boxes and different styles of text makes it visually attractive. Secondly, it should become apparent that even a tiny amount of illustrative material brightens up a publication no end.



● Magazines cannot live by text alone: this month we look at illustrating your pages

There are two main types of illustrative material that can be used; drawings and photographs.

Photographs can be those you have taken yourself or those you have stolen from magazines. Obviously those you have taken yourself are more likely to fill your needs. It's unlikely, for instance, that you will find a photo of your brother balancing a CPC on his head in the *British Medical Journal*. I don't know though. Maybe...

Conversly, photographs culled from other publications can depict things you are unlikely to be able to photograph yourself. For instance, if you're doing a spoof article about an Apollo rocket, chances are you haven't got one lying around in your back garden (unless you live in Houston, Texas, that is).

Taking your own photos involves considerable expense. Apart from the cost of the film (horrendous) and the cost of the processing (doubly horrendous), if you want your pictures to look good in the finished magazine, which having spent so much on getting them taken you obviously should, you will need to get them screened. We will be covering this process fully when we look at printing. Suffice to say, it's quadruply horrendous.

Photos from magazines will have already been taken, processed and screened. One slight disadvantage of 'borrowing' photos in this way is that it's totally and utterly illegal, thanks to one of those Copyright Acts we all know and love. There are a number of picture libraries around which will supply you at a reasonable rate, and you can also write to newspapers and magazines asking if they could supply you with pictures. Expect to pay copyright fees of around £3-£4 per photo.

Having said that, any use of material from other sources (such as the broadcasting of humorous newspaper mistakes on *That's Life*) is technically illegal. Even if someone from the publication concerned spots one of their pictures in your mag, it is unlikely they will chase you up, unless the picture has been used too blatantly.

It remains illegal though, and if anyone sends in a fanzine to the printer competition that features artwork nicked from this series, I will personally come round to their house and bop them on the head with a boiled carrot (in accordance with the 1976 Copyright Act).

The other form of illustrative material – drawings – encompasses a number of different types of illustration; cartoons, comic strips, diagrams, pie charts, etc. These can be produced either on computer or by hand.

Obviously, drawings produced on computer will be more precise as far as shapes and angles go. Diagrams and pie charts are best produced on computer. Large comic strips, however, are obviously best produced by hand, since they'd take years to complete on screen. Simple drawings or cartoons can be produced by either method, though the computer will produce a better looking end product (if you've got the time). An examination of the different software and peripherals available for doing this forms the major part of this instalment.

As for hand-drawn illustrations, if your own artistic ability is a bit on the dodgy side, it would be wise to hunt out someone who can draw brilliantly. You'll find that even if the text is diabolical no-one'll complain, but if you use pathetic-looking drawings you can bet your 'friends' will take the mick incessantly.

If you can't find an 'artist' amongst your associates, you could always wander the streets looking for one. They have brown curly hair, and they wear Black Sabbath T-shirts.

You've got your text. You've got your artwork. Now what? You'll have to wait till next month's instalment (layout) to find out. Reserve your copy today.

CREATE AND WIN!

If you've been following the First Edition series you'll know that we've arranged with Mannesmann Tally, the printer people, to give away their £750 24-pin MT222 printer.



To win thismarvellous machine you'll need to answer the simple questions accompanying each edition. In part 1, for example, we wanted to know who wrote it. In part 2 you had to know who was on the previous month's cover. This month we have another taxing (well, not really taxing at all, actually) question for you.

So keep your eyes on *First Edition*, note the answer to each month's question and get ready to send in your entry. Don't rely on us to reprint the questions (but we might if we feel like it)...

Question three

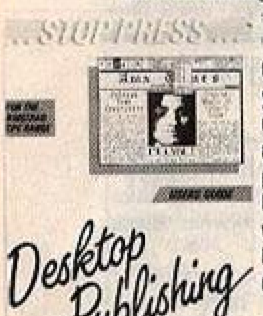
Which of the following is a well-known desktop publishing package for the CPC?

a) Industrial Flocculation Plant Simulator?
b) Stop Press?
c) Battle Ninjas from the Planet Zog?

Better by design

Desktop Publishing is a revolutionary new technique whereby pages of text/art are 'laid down' on a computer, rather than by a grubby looking man in a typesetting room with a pair of tweezers. Though it's the ridiculously expensive computers that are more normally associated with this process, DTP is possible on the CPC, and the results can look stunning.

There's really only one package worth considering if you're deadly serious about the whole thing, and that's *Stop Press*. If you've got 128K of memory, a disk drive and a dot matrix printer, you'd better have *Stop Press* as well, because if you haven't got it you're missing out on a lot.



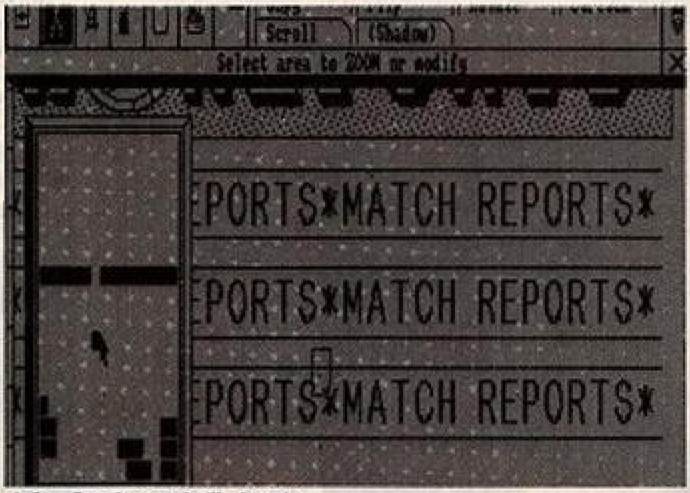
As with all CPC DTP packages, the fonts (different typefaces) supplied are too 'garish' to produce easily readable text at standard type size. Personally I produce all text as per normal, only using *Stop Press* for headlines and illustrations. This does mean missing out on some of the excellent features, though, such as being able to invert boxes of text – most people use *Stop Press* to produce the entire page.

Look at a few sample print outs and try out a friend's copy if you can, just to see how versatile *Stop Press* is – it can do more different things than most of the £700 packages on the Apple Macintosh. On *Stop Press* you can produce text of any size (from pin-head letters to full page letters), there are lots of different fonts included, you can draw and edit illustrations, make fine adjustments, correct mistakes, add patterned borders, run text around illustrations, create boxes, add shaded backgrounds, fill circles with text, invert text or illustrations, sail the Atlantic; anything. (Except sailing the Atlantic, which was a joke.)

£80 (including mouse) is a fair whack. It's a lot cheaper without the mouse of course, but don't fall into the same trap as me and think 'I've got a joystick, what do I need a mouse for?' *Stop Press* is designed for use with a mouse, and the controls are therefore very sensitive. Even the lightest tap on a joystick will either have no effect or send the cursor half way up the page. It can take almost five minutes to get into position, so make sure you don't leave any breakable objects within striking distance.

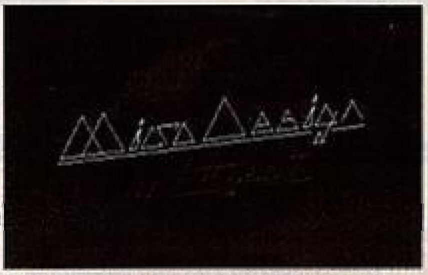
Fleet St Editor? Well, we waited two years for it, and by the time it finally emerged there was only one paper left on that famous street (and that's since gone). It's clumsy, slow, and contains more bugs than the insect house at Chessington Zoo. It was delayed two years while bugs were being removed, so what it was like on its original scheduled release date one dreads to think.

Available for a couple of months for slightly more than the price of a blank disk, it has now disappeared altogether, which is a shame really. When *Pagemaker* (aka *Stop Press*) originally appeared it too was full of bugs. The press reaction was so positive to the concept and operation of the programme though, that it was debugged and re-released. *Fleet St Editor* looks dead and buried. Oh well, even if it had worked properly, *Stop Press* would have left it standing.



● *Stop Press*'s zoom facility in action.

Micro Design is an odd little package. It's not really DTP by any stretch of the imagination. Text can only be entered a line at a time and there's only one real 'writing' font. The art facilities are very good, though there's no 'stretch' command. Patterned fills are possible and the zoom-editing area is very large (the *Stop Press* area is very small, often making it difficult to know what you're doing).



● *Micro Designs*: not really a DTP package, but great for diagrams.

There are some nice fonts provided, though they are only available in one size, and some work better than others. Inline for instance (my favourite of the lot) is afflicted by a rather odd process whereby the computer selects its own spacing between the letters, which are alternately plastered on top of each other and then two inches apart!

There is also a very bizarre coded alphabet, which utilises pictures to represent letters of the alphabet; 'B' is a bee, 'C' is the sea, etc. Some are more bizarre than others. 'Q' is a sweet drawing of three little stickmen in a row, 'T' is a breast (oh dear), and pressing 'U' results in the computer calling you a rather rude word. Siren supremo Simon Cobb (nickname 'Cobblers') denied all knowledge of these letters. "I don't know anything about it," he said, denying all knowledge.

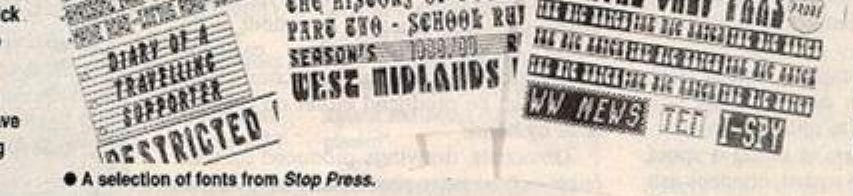
There are plenty of icons supplied, including lots of different electrical components (which I can understand) and items of shrubbery (which I am immensely confused by). *Micro Design* is probably best for producing electronic circuits or, er, plans of horticultural displays. It makes no claim to being a proper DTP package, and it isn't one.

It does include superb page-handling features, however, and the printouts are of a much higher quality than the other packages (since it uses square half-pixels rather than rectangular full-pixels). A shame the text facilities weren't more versatile. If you want to produce diagrams, plans or the like, *Micro Design* could be the one for you. Fanzine editors think again.

There are two other 'proper' DTP packages available; *Page Publisher* and *Tiny Desk Top Publisher*. Neither comes close to matching *Stop Press* in performance or indeed price. *Tiny Desk Top Publisher* is tiny, and only really a desk top publisher if you've got a lot of time and patience on your hands. *Page Publisher*, on the other hand, is a lot easier and quicker to use than *Stop Press*. Though it lacks many of the latter's features, if you really can't pool together the cash needed for *Stop Press*, *Page Publisher* is a worthwhile investment.

There are other packages which include some of the text aspects associated with Desktop Publishing. Though not DTP packages in their own right, products like *Pendown*, *Tasword* and *Qualitas* all facilitate printouts in many different fonts.

Indeed, if you have a plush printer which can download characters and has plenty of different fonts, sizes and effects built in, even *Protext CPM+* (which has the ability to handle columns) can almost get away with calling itself a DTP package.



● A selection of fonts from *Stop Press*.

Artful dodges

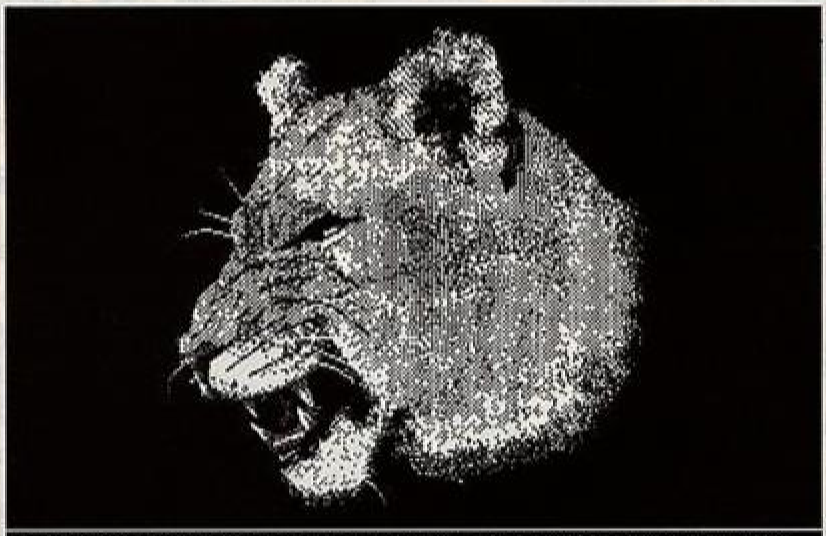


The graphics mode in *Stop Press* provides all the functions you could ever need. With stretching, zooming and a variety of different shapes and patterns to choose from you can produce all your illustrations and text on this one program. However, to produce a picture of 'loading screen' quality and detail (though possible) would take ages. If you're likely to want very detailed computerised illustrations in your fanzine, you'd better start looking to art packages.

The 'big guns' of the artwork world are *AMX Art* and *Advanced Art Studio*. The latter is undoubtedly the best, with incredibly intricate pictures easy to produce, and (of particular note) a font editor with seven in-built fonts that put most of those supplied with *Stop Press* to shame. This allows for simple and stylish labelling and lettering of illustrations. Fanzine folk probably won't find the new *Art Studio*/Genius Mouse package quite as enticing as it should be, due to the incompatability of the mouse with *Stop Press*. Mice are pretty expensive, having two where one should suffice doesn't sound too clever.

AMX Art offers most of the features as *AAS*, but best of the rest has to be *Easiart*, which includes amongst other things a 'freehand draw' option. Great fun for all those people who, like me, pine for their old *Etchasketch*. There are other packages, such as *Cherry Paint*, but these three are the only ones one could call 'full specification' packages.

Unlike DTP packages, there is little to differentiate between when comparing these packages. All three include similar features and levels of sophistication. The main difference between these art packages and the graphics mode of *Stop Press* is that the art programs can produce colour pictures.



● You can create images like these using an art package, then import them into DTP documents.

This is not an awful lot of help as far as producing magazines goes. Even if you own a Star LC-10 colour printer and can utilise a colour screen dump routine, colour printing is so expensive that you'd need to sell you computer, all your peripherals and at least two elderly relatives, before you could even start to consider it.

Shading is used when printing out on a standard printer (usually four different shades), which does produce pictures with a 'photographic' quality about them. Such pictures can be produced on *Stop Press* just as easily and, since you'll be working in black and white, you have a better idea what the eventual printout will look like (objects of a similar tone to their background tend to 'disappear' when using an art program, since they come out as the same shade).

Though I'm not the best person to comment on art packages (I have problems drawing a pair of curtains, let alone anything remotely artistic), *Advanced Art Studio* is clearly the best if you want something specialised.

If you buy *Stop Press* (which is worth having for the text facilities alone) and find that you need something more sophisticated, then it might be the time to consider standard art packages.

As far as I'm concerned *Stop Press* is more than adequate for my artistic endeavours.

Scanners

Computer-generated artwork is all very well, but you can't produce intricate detailed cartoons like our example, it would take too long. Wouldn't it be nice to be able to install hand-drawn artwork into the computer environment, where you could edit, stretch or modify it? Yes it would, and you can.

● The *DART Scanner*, which unfortunately only works with a DMP 2000/3000 series machine, allows you to feed drawings or photos through your printer and into the software environment (eg *Stop Press*). The scanner attaches to your printer, scanning the picture and making each pixel area either black or white depending on which there is most of in it. The finished product is obviously more 'blocky' than what you fed in, but if the drawing was useless anyway it gives you the opportunity to zoom-edit it into something more presentable. It's expensive though.

The *VIDI Digitiser* is a weird device that inputs a signal from a video camera or recorder and sends it through to your computer. Similarly to the scanner, it reads the image as black and white pixels (any image with lots of grey scales in will come out looking not a bit like what it's supposed to be). The image is actually sent continually to your monitor till you select a point to 'freeze' it. You could get so involved in watching the weird moving image that you forget to stop it. Though you can watch anything you like through this, the moment you press the 'freeze' button you have stored the image through an electrical storage device. By the way, if it's not a home-made video/image you've just broken the law. You're not allowed to use TV images in a magazine really either. Oh well...



● Complex illustrations that can't be drawn on an art package will need 'scanning'

● If you want to get really keen you could go for Rombo's Vidi video digitiser. It's a broadly similar product to the Dart Scanner, but works by grabbing and digitising moving pictures to produce results composes of a series of grey scales. The Vidi needs a video recorder or video camera before you even start, whereas the Dart Scanner merely needs a printer.



● The *Electric Studio Light Pen* – great for freehand artists.

● Also worth mentioning is the *Electric Studio Light Pen*, which allows you to 'draw' on your screen, thereby letting you insert 'hand-drawn' images into the computer through another method. Remember to check compatability, and if possible try the piece of hardware first, before shelling out the moolah.

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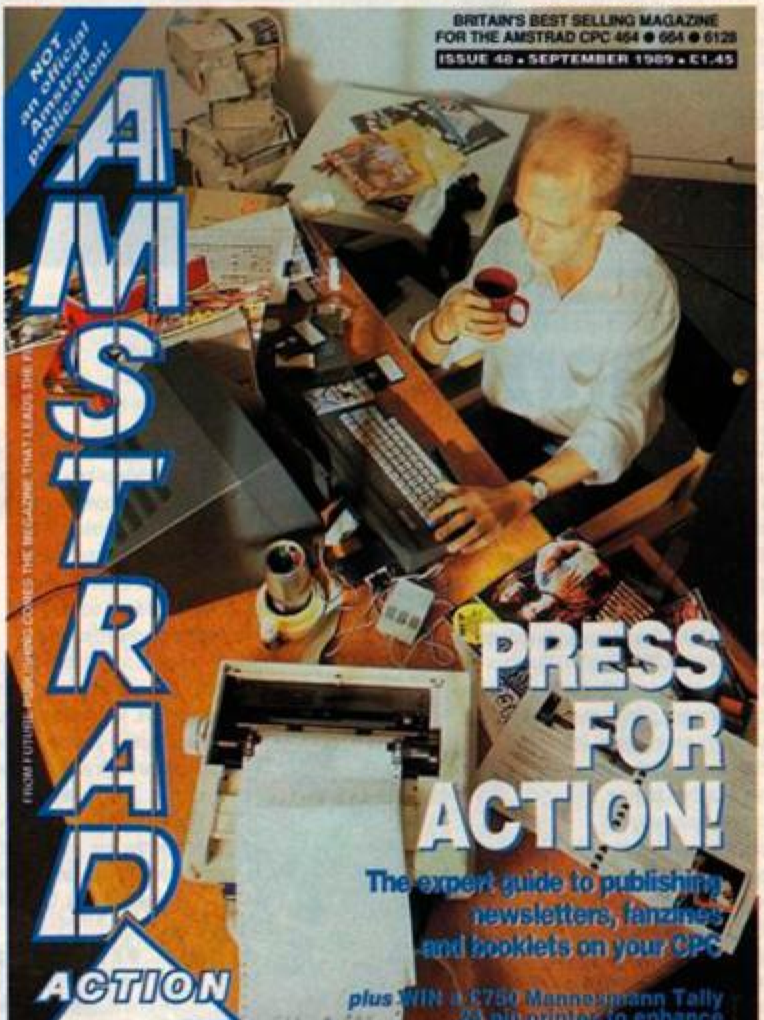
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TYPE-INS

New boy ADAM WARING introduces this month's keyboard kapers

128K MEMORY SWAPPER

Alistar Young provides a useful utility for users with 128k machines. The program was writen on 6128, but should work on expanded 464/664's if the indicated lines are substituted.

Two RSX's are set up: |MSAVE which copies ram banks 0-2 into banks 5-7, and |MSWAP which exchanges the information in these banks. The RSX's reside at address &AF00, which is safe memory that will survive a system reset, and can be re-activatedby CALL &AF00. As a built in saftey feature, you cannot |MSWAP before firstly doing a |MSAVE, the system would crash if you did.

The memory swapper is ideal for using alongside such programs as protext. To do this, alter line 430 to read:

```
430 RUN"PROTEXT"
```

Or whatever, and the program will be loaded automatically after the memory swapper is implemented.

```
{HkBi}  10 REM Memory Swapper, Basic Poker
{ApAs}  15 REM By Alistair Young
{LjAp}  20 MEMORY 32766
{OnAq}  30 addr=&AF00:ln=140
{KmCn}  40 READ
        mcode$:chk$=RIGHT$(mcode$,3):mcode$=LEFT$(mcode$,LEN(mcode$)-3)
{BjBl}  50 IF mcode$="END" THEN GOTO 390
{FkAl}  60 tot=0
{MnAs}  70 FOR pke=1 TO 27 STEP 2
{IwBj}  80 byte=VAL("&"+MID$(mcode$,pke,2))
{MkBi}  90 POKE addr,byte:addr=addr+1:tot=tot+byte
{OwAj}  100 NEXT
{AvBm}  110 IF tot<>VAL("&"+chk$) THEN GOTO 130
{IpAs}  120 ln=ln+10:GOTO 40
{EpBm}  130 PRINT"There is a data error in line";ln:END
{GwBj}  140 DATA 211CAF0109AFC3D1BC11AFC320AF647
{HpBl}  150 DATA C36FAF4D534156C54D535741D0005E5
{HoBk}  160 DATA 1CAF09AF210FB036FF3E05CD5BBD5C0
{ExBn}  170 DATA 110040210000010040EDB03E06CD361
{PrBm}  180 DATA 5BBD110040210080010040EDB03E426
{EjBk}  190 DATA 00CD5BBD1100C0210040010040ED445
{HtBn}  200 DATA B03E07CD5BBD1100402100C001004OD
{ApBn}  210 DATA 40EDB03E00CD5BBD3E02C30EBC3A607
{GuBl}  220 DATA 0FB0FEFFC20AB03E05CD5BBD1100671
{IvBm}  230 DATA C0210040010040EDB0110040210O371
{HvBl}  240 DATA 00010040EDB03E00CD5BBD110000412
{JuBn}  250 DATA 2100C0010040EDB03E06CD5BBD114F9
{OvBm}  260 DATA 00C0210040010040EDB011004021371
{EoBm}  270 DATA 0080010040EDB03E00CD5BBD1100492
{ABn}   280 DATA 802100C0010040EDB01100C02100431
{NsBo}  290 DATA 40010040EDB03E07CD5BBD11004O499
{MwBk}  300 DATA 2100C01A46EB1270EB13237CFE00549
{LpK}   310 DATA 20F37DFE0020EE3E00CD5BBD11005D0
{PuBm}  320 DATA 402100C0010040EDB03E02C30EBC4CC
{InBi}  330 REM  Next two lines, 6128 ONLY
{GnAw}  340 DATA 3E05D7550B00000000000000000017A
{HwAp}  350 DATA END000
{HpBl}  360 REM  Next two lines, 464/664 ONLY
{JrBi}  370 DATA 3E05D7550B00C6C001007FED79C95AF
{FaAo}  380 DATA END000
{FaAo}  390 MODE 1:CLS
{FiAp}  400 CALL &AF00
{OqAv}  410 REM Next line, 464/664 ONLY
{AjBr}  420 POKE &BD5B,&C3:POKE &BD5C,&10:POKE &BD5D,&B0
{AkBj}  430 PRINT"|MSWAP and |MSAVE installed."
{DjAm}  440 PRINT
{GuBu}  450 PRINT"|MSAVE to save memory into second 64k."
{HtAl}  460 PRINT
{NpBn}  470 PRINT"|MSWAP to swap between two banks."
{MnAl}  480 PRINT
{JvCq}  490 PRINT"CALL &AF00:|MSWAP to retrieve what is inthe second 64k
        after a reset."
{MwAk}  500 PRINT
{LvBr}  510 PRINT"NB: You cannot |MSWAP until you have    |MSAVEd."
```

CONTRIBUTIONS

If you think your program is good enough to be be published in Type-Ins then send your program on disk or tape (not listings, we simply don't have the time to type them in) with as much documentation as possible. Every listing published will earn its author a CASH PRIZE, so get send those routines to:

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● Sorry, but if you don't enclose an SAE you won't get your tape/disk back!

FRACLAND

(664 & 6128 only)

Create weird and wonderful landscapes with Andy Wood's fractal generation program. An alien world is built up using fractal principlesapplied to general landmasses, brokendownrepeatedly into smaller upper and lowland areas. The landscape is made up of an array of 32 by 32 elements, each holding the height of the landscape at that point. The array is divided into four quadrants, and a random height is allocated to all the points within that quadrant. A recursive procedure breaks down each quadrant into sub quadrants, modifying the values until they can no longer be subdivided.

Once all the calculations have been determined, a perspective view is generated. Hidden line removal is obtained by clever use of the fill command. Trees are planted to add a sense of scale. The sea level is raised will each viewing, gradually submerging the landscape, to create islands and inlets.

```
{DwAs}  145 ' Data & Variables
{MkAi}  150 '
{MuAo}  155 DATA 16,8,4,2,1
{GnAs}  160 DATA 256,64,16,4,1
{EmAs}  165 DATA 0,0,0,1,1,1,1,0
{OoAj}  170 '
{MrAn}  175 DEFINT a-z
{UgAj}  180 '
{MtBr}  185 DIM p(1024),p2(4),p4(4),fa(32,32),pa(4,2)
{EnAp}  190 hightide=100
{KmAo}  195 lowtide =60
{OgAo}  200 tidestep=20
{DnAt}  220 ' Main control block
{JsAv}  235   GOSUB 330:'          INITIALISE
{GlAp}  245   RANDOMIZE TIME
{NjBm}  255   GOSUB 440:'          CALCULATE LAND HEIGHT
{HlBl}  260   GOSUB 510:'          CONVERT TO 2D ARRAY
{ClAs}  270   seed=(RND*30000)
{NgAr}  275   sea=lowtide
{EkAn}  285   WHILE sea <= hightide
{DpBn}  290   GOSUB 590:'          DRAW 3D VIEW & RAISE SEA LEVEL
{KkAk}  295   WEND
{PmAv}  305   ERASE p:DIM p(1024)
{Enu}   310   GOTO 245:'           REPEAT...
{DvAp}  330 ' Initialise
{NwBi}  340 SYMBOL 240,4,10,28,14,27,30,59,12:' Tree
{NlAq}  350 ON BREAK GOSUB 870
{JvAm}  355 MODE 1
{OnBk}  360 INK 0,1:INK 1,0:INK 2,18:INK 3,9
{NaAx}  365 PAPER 1:PEN 2:BORDER 0:CLS
{AsAr}  370 WINDOW 2,39,25,25
{PqBj}  375 GRAPHICS PAPER 1:GRAPHICS PEN 3,1
{IlAx}  385 MOVE 0,20:DRAWR 0,379:DRAWR 639,0
{AvAv}  390 DRAWR 0,-379:DRAWR -639,0
{BiAt}  395 ORIGIN 8,27,8,628,392,27
{AtAq}  400 RESTORE 155
{JxAx}  405 FOR f=0 TO 4:READ p2(f):NEXT
{KjAv}  410 FOR f=0 TO 4:READ p4(f):NEXT
{AjBn}  415 FOR f=0 TO 3:READ pa(f,1),pa(f,2):NEXT
{NoAm}  420 RETURN
{MvAs}  440 ' Raise landscape
{MiBq}  450 CLS:PRINT"GENERATING LANDSCAPE    (TAKES 2 MINS)";
{NaAs}  460 c=256:WHILE c>0
{GpAu}  465 FOR f=0 TO 1023 STEP c
{MpAs}  470 h = 6*(RND*SQR(c))
{HgAq}  475 FOR g=0 TO c-1
{BmAr}  480 p(f+g)=p(f+g)+h
{CsAu}  485 NEXT g,f:c=c/4:WEND
{MrAn}  490 RETURN
{ArBj}  510 ' Convert to 2D array for plotting
{NmAq}  520 FOR pt=0 TO 1023
{ClAr}  525 t=pt:a=0:d=0
{GuAp}  530 FOR g=0 TO 4
{BwAo}  535 v=t\p4(g)
{LqAs}  540 t = t MOD p4(g)
{NqAt}  545 a=a+(p2(g))*pa(v,1)
{DjAt}  550 d=d+(p2(g))*pa(v,2)
{JkAm}  555 NEXT g
{MxAq}  560 fa(a,d)=p(pt)
{JlAn}  565 NEXT pt
{ApAn}  570 RETURN
{JkAu}  590 ' Draw filled 3D landscape
{DoAn}  600 CLS:CLG
{LvAq}  605 RANDOMIZE seed
{IoBk}  610 PRINT "SEA LEVEL :";sea;TAB(31)"N : NEXT";
{NsAs}  615 FOR x=30 TO 1 STEP -1
{MwAs}  620   FOR y=30 TO 1 STEP -1
{HvBk}  625     ORIGIN -x*10+y*10+320,x*6+y*6-70
{DoBm}  630     x(1)=-10:x(2)=0:x(3)=10:x(4)=0
{MwAw}  635     y(1)=MAX(fa(x+1,y),sea)
{MlAu}  640     y(2)=MAX(fa(x+1,y+1),sea)+6
{JwAt}  645     y(3)=MAX(fa(x,y+1),sea)
{PrAw}  650     y(4)=MAX(fa(x,y),sea)-6
{AxBt}  655     GOSUB 735:'                    Draw one square of land
or sea
{AkBn}  660     IF RND>0.97 THEN GOSUB 835:' Plant a tree
{LvBr}  665     IF INKEY(46) = 0 THEN 705:'  [N] = next view
{HvAm}  670 NEXT y,x
{HsBi}  680 IF sea>=hightide THEN 705
{GqAx}  685 FOR f=1 TO 12000: ' delay
{OtBq}  690 IF INKEY(46) = 0 THEN 705:'  [N] = next view
{KqAk}  695 NEXT f
{JkBn}  705 sea=sea+tidestep:' Raise sea level
{ImAo}  715 RETURN
{GvBk}  735 ' Draw one 'square' of landscape
{BvAp}  745 FOR a=0 TO 4
{IaAp}  750 n=a MOD 4 +1
{EqBs}  755 IF a THEN DRAW x(n),y(n) ELSE MOVE x(n),y(n),2
{AnAl}  760 NEXT a
{MrBo}  765 IF y(1)<>sea OR y(3)<>sea THEN shade=1:GOTO 775
{FoBr}  770 IF y(2)-6=sea AND y(4)+6=sea THEN shade=0:' sea
{NlAs}  775 MOVE 0,(y(2)+y(4))/2
{CmAp}  780 FILL 0:FILL shade
{LiAn}  790 FOR a=0 TO 4
{KpAq}  795 n=a MOD 4 +1
{MnBr}  800 IF a THEN DRAW x(n),y(n) ELSE MOVE x(n),y(n),3
{EtAn}  805 NEXT a
{CrAo}  810 RETURN
{CrAm}  830 ' Plant a tree
{AwBs}  840 IF shade=0 THEN 860:' Dont allow floating trees!
{GrBi}  845 MOVE -4,((y(2)+y(4))/2)+16,2
{HvAs}  850 TAG:PRINT CHR$(240);
{MnAm}  855 TAGOFF
{LoAm}  860 RETURN
{FiAs}  880 ' On break reset screen
{CwBt}  890 MODE 2:INK 0,1:INK 1,26:PAPER 0:PEN 1:BORDER 1
{KkAm}  895 LIST
{NtAl}  905 END
```

DATA CREATOR

Richard Carr of my old home town, Hull has come up with just the thing for budding contributors to Type-Ins andCheatMode. His data creator converts bytes in memory into a listing of DATA statements, along with a few lines of BASIC to poke the code back into memory ready to run.

Firstly load in the .BIN file you want to convert, then run Richard's program. Answer the questions the program asks you, and a BASIC file called "DATA" will be saved.

```
{FpAs}  10 INPUT"Start address?...",s
{OlAs}  20 INPUT"End address?...",e
{NiAx}  30 INPUT"Saving speed? (0/1)...",ss
{ClAx}  40 IF ss<>1 AND ss<>0 THEN 30
{AtAq}  50 SPEED WRITE ss
{HnAk}  60 l=10
{IsAp}  70 OPENOUT "data"
{GtAq}  80 FOR a=s TO e STEP 8
{OjAs}  90 f$=STR$(l)+" DATA "
{AlAp}  100 FOR b=0 TO 7
{KwBs}  110 h$=HEX$(PEEK(a+b)):IF LEN(h$)=1 THEN h$="0"+h$
{HqAo}  120 f$=f$+h$+","
{KmAk}  130 NEXT
{KiAt}  140 f$=LEFT$(f$,LEN(f$)-1)
{JrAn}  150 PRINT#9,f$
{LqAm}  160 PRINT f$
{OkAp}  170 l=l+10:NEXT
{GuBi}  180 a$=STR$(l)+" DATA end":PRINT#9,a$
{BnAm}  190 PRINT a$
{CnBq}  200 l=l+10:a$=STR$(l)+" add=&"+HEX$(s):PRINT#9,a$
{OpAm}  210 PRINT a$
{BoCt}  220 l=l+10:a$=STR$(l)+" READ a$:IF
a$="+CHR$(34)+"end"+CHR$(34)+"
          THEN END":PRINT#9,a$
{GvAm}  230 PRINT a$
{AtCr}  240 l=l+10:a$=STR$(l)+" POKE

add,VAL("+CHR$(34)+"&"+CHR$(34)+"+a$):add=add+1":PRINT#9,a$
{PlAl}  250 PRINT a$
{BvBr}  260 l=l+10:a$=STR$(l)+" GOTO"+STR$(l-20):PRINT#9,a$
{HrAm}  270 PRINT a$
{FkAo}  280 CLOSEOUT
```

BOGGLE

This mind boggling geometric delight comes once again from Andy Wood of Sheffield. Despite being only a few lines long, it produces an endless variety of animated patterns on screen. 464 owners should omit line 14 from the listing.

```
{MaAr}  10 ' "Boggle"        Andy   August
{OuAq}  11 '                 Wood   1989
{BuAk}  12 '
{EjAq}  13 MODE 0:BORDER 0
{GpAq}  14 GRAPHICS PAPER 0
{HwAr}  15 FOR d=165 TO 65000
{EtAp}  16   FOR f=0 TO 15
{MtAm}  17     INK f,fM
{FmAl}  18   NEXT f
{HpAq}  19   c=(d MOD 6)+1
{NpAw}  20   a=(c MOD 3)*213:u=(c MOD 2)*200
{DxAx}  21   ORIGIN a,u,a,a+208,u,u+196
{PnAr}  22   ORIGIN a+106,u+100:CLG
{AtAp}  23   FOR f=1 TO 100
{FkBo}  24     DRAW f*COS(f*d),f*SIN(f*d),(f MOD 15)+1
{NmAk}  25   NEXT f
{HsAr}  26   FOR x=1 TO 1000
{JjBi}  27     INK (x MOD 15)+1,(x MOD 4)+2
{NxAk}  28   NEXT x
{BwAm}  29 NEXT d
```

SUPER CAT

Peter Dalton of Scunthorpe has come to the rescue of Len Phillips, who wanted a routine to be able to catalogue files with more than eight characters in the file name (*AA*43). Peter's program allows 35 character descriptors to be stored in a disk file header.

After running the BASIC loader, HIMEM will be lowered to &A4FF and the code placed above it. The SAVE and CAT routines can be switched on or off as required, and a filename of up to 35 characters stored ready for transfer to the file header when your program is saved.

To place some text into a file header, first load the program as normal. CALL &A500 to set up the save routine. LET A$="your text", then CALL &A50C,@A$. Any characters can be used, and if you type more than 35 then the string will be truncated.

Now type SAVE"filename" as normal using an eight-letter file name. Any machine code or BASIC program can be saved.

To check that all is well, try a normal CAT and your program will apear in the usual way. Now CALL &A503 to set up SUPERCAT. From now on CAT will change the screen to mode 2, each eight-byte file name will be listed, followed by the extended descriptor for that program.

Programs are loaded in the normal way, using the eight byte filename, and will load regardless of whether the SUPERCAT code is installed.

To return the SAVE to normal call &A506, and for CAT call &A509.

FIREWORKS

We've recieved quite a few firework display routines in response to C Russell's request in Forum, *AA* 48. Rob Mundin of Portsmouth suggested pouring a glass of water down the back of the monitor should do the trick! Hmm, perhaps Johnny Chan of Studley has a less dangeous solution...

```
{HsBu}  10 ENV 1,15,-1,20:ENV 2,15,-1,5:ENV 3,7,-1,3,7,1,3,15,-1,10
{GtBk}  20 DEG:DIM s(360),c(360):DEFINT t-z
{MxBs}  30 FOR t=0 TO 360:s(t)=SIN(t):c(t)=COS(t):NEXT:MODE 0
{NsBo}  40 FOR t=1 TO 15:INK t,27-t:NEXT:INK 0,0:BORDER 0
{NiBl}  50 x=RND*550+60:y=RND*300+50:z=RND*14+1
{IxBx}  60 SOUND 7,0,0,15,INT(RND*3)+1,,INT(RND*31)+1:FOR t=1 TO 53
STEP 4
{LxBl}  70 FOR w=0 TO 324 STEP 36:PLOT s(w)*t+x,c(w)*t+y,z
{IlBs}  80 IF t>10 THEN PLOT s(w)*(t-12)+x,c(w)*(t-12)+y,0
{CpAt}  90 NEXT:IF t>40 THEN z=0
```

```
[JvAo]  10 MEMORY &A4FF
[LpBj]  20 FOR n=&A500 TO &A665 STEP 20:t=0
[DxGk]  30 FOR i=0 TO 19:READ a$:a=VAL("&"+a$)
[PqAt]  40 t=t+a:POKE(n+i),a:NEXT
[DiBk]  50 READ a$:IF t<>VAL(a$) THEN GOTO 80
[LlAj]  60 NEXT
[GnAk]  70 END
[MoAk]  90 END
[OmBx]  100 DATA c3,1e,a6,c3,fe,a5,c3,31,a6,c3,11,a6,fe,01,c2,c0,a5,c3,3e,a6,3022
[JnCl]  110 DATA e5,f5,cd,11,a6,f1,e1,11,00,9d,d5,cd,9b,bc,3e,02,cd,0e,bc,cd,2939
[ElCo]  120 DATA 0a,a6,e1,06,00,11,0e,00,3e,ff,18,02,19,04,be,28,fb,c5,d5,11,1718
[MxCl]  130 DATA 09,00,48,06,04,2b,2b,7e,23,77,10,f9,2b,36,2e,41,a7,ed,52,10,1432
[BtCj]  140 DATA ed,d1,c1,23,c5,d5,e5,11,00,c0,06,0c,cd,77,bc,d2,ba,a5,cd,7a,2940
[PsCl]  150 DATA bc,e1,e5,06,0c,7e,23,cd,5a,bb,10,f9,e5,cd,cc,a5,20,20,00,e1,2660
[FxCm]  160 DATA 7e,06,ff,04,d6,0a,30,fb,c6,0a,4f,78,fe,00,20,02,3e,f0,c6,30,2157
[IoCk]  170 DATA cd,5a,bb,79,c6,30,cd,5a,bb,cd,cc,a5,4b,20,20,00,21,71,a7,06,2363
[FvCm]  180 DATA 23,7e,23,cd,5a,bb,10,f9,cd,cc,a5,0d,0a,00,e1,d1,c1,19,10,a0,2368
[OtCi]  190 DATA c9,cd,92,bc,18,06,cd,7a,bc,e1,d1,c1,cd,cc,a5,0d,0a,45,72,72,2806
[OsCk]  200 DATA 6f,72,00,c9,e1,7e,cd,5a,bb,23,fe,00,20,f7,e9,f5,e5,cd,31,a6,2954
[LtCk]  210 DATA e1,f1,cd,8c,bc,30,d2,c5,d5,e5,f5,dd,e5,cd,2a,a6,11,bb,a7,21,3408
[IoCj]  220 DATA 86,be,01,23,00,ed,b0,dd,e1,f1,e1,d1,c1,c9,3a,9b,bc,2a,9c,bc,3075
[KqCl]  230 DATA 32,80,be,22,81,be,3e,c3,21,14,a5,18,06,3a,80,be,2a,81,be,32,2013
[ExCl]  240 DATA 9b,bc,22,9c,bc,c9,3a,8c,bc,2a,8d,bc,32,83,be,22,84,be,3e,c3,2663
[LtCp]  250 DATA 21,d7,a5,18,06,3a,83,be,2a,84,be,32,8c,bc,22,8d,bc,c9,21,86,2295
[HnCm]  260 DATA
        be,06,23,36,20,23,10,fb,dd,6e,00,dd,66,01,7e,fe,23,3B,05,01,1751
[AjCm]  270 DATA 23,00,18,03,4f,06,00,23,5e,23,56,eb,11,86,be,ed,b0,c9,00,00,15871
```

SCREEN EFFECT

Manchester-based David Hall has been poking around with his video chip lately, and came up with these two shorties. Try them!

```
[KjBl] 10 MODE 1:CLS:BORDER 15:INK 0,1:INK 2,7
[BiAv] 20 FOR g=0 TO 5:FOR k=0 TO 3
[AmAt] 30 PLOT g*106+10,k*100+50,2
[PtBs] 40 m=90:FOR t=1 TO 23:DRAWR m,0:MOVER -m+2,2:m=m-
       4:NEXT
[EnCk] 50 m=90:MOVER -45,-80:FOR t=1 TO 23:DRAWR m,0:MOVER
       -m+2,2:m=m-4:NEXT
[DlAw] 60 NEXT:NEXT:OUT &BC00,7:h=0:z=0
[BiBm] 70 WHILE z<10:h=h+1:IF h=39 THEN h=0:z=z+1
[BwBi] 80 OUT &BD00,h:CALL &BD19:WEND
[DoBn] 90 INK 2,INT(RND(1)*25)+2:FOR f=1 TO 10:NEXT
[GvBk] 100 BORDER INT(RND(1)*25)+2:z=0:GOTO 701

[BwBj] 10 FOR t=40 TO 1 STEP-1:GOSUB 50:NEXT
[HwBl] 20 INK 0,RND*25:FOR t=0 TO 40:GOSUB 50:NEXT
[GwAs] 30 FOR j=1 TO 1000:NEXT
[PqBo] 40 i$=INKEY$:IF i$="" THEN 10 ELSE INK 0,0:END
```

DIRPRINT

Belgian reader, Ivan Fontaine of Ougrée, has sent us this rather useful disk catalogue program.

Instead of unreadable scribble on the label of the contents of your disk, Ivan's program prints out a miniture list of all the files, which can be glued onto the disk as a permenant reminder. No more excuses for lost files!

```
{IsBj}  2 '!   DIRPRINT V42 (DELUXE !!!) by    !
{FmAt}  3 '!          Ivan Fontaine            !
{DwAu}  4 '!           Hexa loader             !
{FtOo}  40 MEMORY &8FFF:ln=100:DEFINT a-z: FOR add=
        &A000 TO &A246 STEP 15:READ code$
{NmCj}  50 chk=0: FOR c=0 TO 14:v=VAL("&"+MID$
        (code$,c*2+1,2)):POKE add+c,v
{MxCv}  60 chk=chk+v:NEXT:IF chk<>VAL("&"+
        RIGHT$(code$,3)) THEN PRINT"Typing mi
        take in line: ";ln:END
{HuAq}  70 ln=ln+10:NEXT
{LrDl}  80 INPUT"Do you want small characters
        (Y/N)";a$:IF UPPER$(a$)="N" THEN FOR
        c=&A102 TO &A10F:POKE c,0:NEXT
{ArEk}  90 INPUT"Save file or Run (S/R)";a$:
        a$=UPPER$(a$):IF a$="S" THEN
        SAVE"DIRPRINT",b,&A000,&247 ELSE IF
        a$="R" THEN CALL &A000 ELSE GOTO 90
{DkBk}  100  DATA 2125A0CD1BA006503E9ACD5ABB10F9687
{OkBk}  110  DATA 210401111950CD66BBC356A17EFE005C4
{JlBm}  120  DATA C8CD5ABB2318F604021F150118202D47B
{OiBk}  130  DATA 204449525052494E542056342E32203B6
{GuBl}  140  DATA 2D206279204976616E20464F4E544146E
{EsBk}  150  DATA 494E45202D20181F06025052455353315
{InBl}  160  DATA 205B53504143455D20746F2063617449F
{NwBl}  170  DATA 616C6F677565206120646973632C2050D
{NuBl}  180  DATA 5B454E5445525D20746F207072696E512
{AtBk}  190  DATA 7420612064697265637469F72791F1B524
{ImBl}  200  DATA 03507265737320616E79206F746865548
{MnBm}  210  DATA 72206B657920746F20657869740A0D4CF
{KtBm}  220  DATA 000C57686174206973207468652074491
{HiBo}  230  DATA 69746C65206F72206E616D65206F66565
{DoBl}  240  DATA 20796F7572206469736320287072655541
{IrBl}  250  DATA 7373205B454E5445525D206966206E4B9
{FsBk}  260  DATA 6F6E6529203A3F200A0D000820080026B
{ClBk}  270  DATA 1F0103001B33101B53311B0F001B541B9
{CsBm}  280  DATA 31121B32003E3E3E20505245535320317
{BxBm}  290  DATA 414E59204B455920544F20434F4E54408
{IlBm}  300  DATA 494E5545203C3C3C00202020596F753A2
{MaBo}  310  DATA 72207072696E7465722069736E277459B
{GqBk}  320  DATA 207265616479202107 0A0D00CD00BB41C
{NuBj}  330  DATA CD06BBF5F1FE20CA69A1FE0DCA7EA195A
{OjBk}  340  DATA C9CD78A12113A1CD1BA0CD06BBC30075D
{LpBn}  350  DATA A0110090C39BBC21B5A0CD1BA0CD817A7
{PmBn}  360  DATA BB2146A2CD06BBFE7FCADCA17723FE8AE
{IvBi}  370  DATA 0DCD5ABB20EFCD84BB21FFA0CD1BA0852
{BlBk}  380  DATA CD78A1C333A2CDFFA12146A2CD1BA087C
{PrBk}  390  DATA 2146A2064636002310FB2103A1CD1B466
{BkBo}  400  DATA A03E01CD0EBCCD78A1210CA1CD1BA06B2
{GkBk}  410  DATA CDFFA13E02CD0EBCC300A00646C57E736
{LnBj}  420  DATA FEFF281036002BE521FBA0CD1BA0E17A0
{OqBl}  430  DATA C110EC1804C12318003E09CD5ABB18516
{BiBn}  440  DATA 8B21D9BD1126A2010300EDB02121A25A0
{IlBm}  450  DATA 11D9BD010300EDB02126A21121A201506
{PxAx}  460  DATA 0300EDB0C9C32BA2000000000000003F9
{KtBj}  470  DATA CD2EBD38FBC331BDCD2EBDCD2EBDD28DE
{AxBj}  480  DATA AAA12135A1CD1BA0C36CA1FF000000699
```

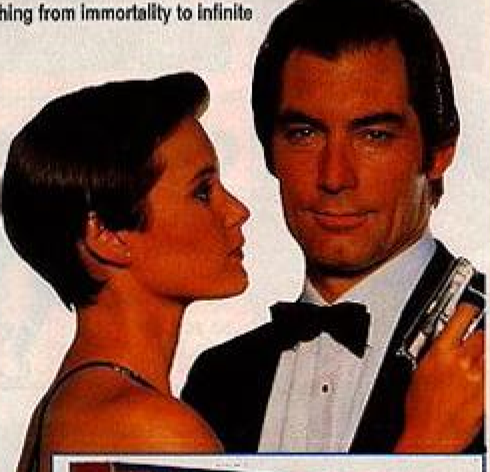
CHEAT MODE

Here comes TRENTON WEBB with another clutch of your cheatin' tactics!

LICENCE TO KILL

The name's Wong, Mike Wong, Licenced to Poke. That's just what he's done with Domark's Bond Epic *Licence To Kill*. You get everything from immortality to infinite energy depending on the stage. Disk.

```
1 'Licence To Kill - Disk
2 'by Mike Wong
3 'Amstrad Action Nov 89
10 MODE 2:MEMORY &7FFF
20 FOR n=&8200 TO &8233
30 READ a$:a=VAL("&"+a$)
40 POKE n,a:c=c+a:NEXT
50 IF c<>5854 THEN 170
60 PRINT"Insert BOND..."
70 CALL &BB18:CALL &821E
80 DATA 3e,a7,32,e5,e6,af
90 DATA 32,f4,e4,32,ee,e7
100 DATA 32,f0,eb,32,7e,dd
110 DATA 32,02,da,32,44,df
120 DATA 32,7d,e4,c3,40,00
130 DATA 21,00,80,e5,11,00
140 DATA 00,0e,41,df,31,82
150 DATA 21,00,82,22,1f,81
160 DATA c9,3c,c0,07,00,00
170 PRINT"Error..." ●
```



THUNDERBIRDS

Beat the clock in all four adventures of the *Thunderbirds*. This poke from Graham Smith of Somerset stops the timer dead in its tracks. You'll never feel like a puppet on a string again! Disk.

```
1 ' Thunderbirds - disk
2 ' By Graham Smith
3 ' Stops counter
4 ' Amstrad Action Nov 89
10 FOR j=0 TO 77:READ a$
20 x=VAL("&"+a$):y=y+x
30 POKE j+99,x:NEXT j
40 IF y<>6185 GOTO 100
50 MODE 1:PRINT"Insert ";
60 PRINT"game disc then ";
70 PRINT"press any key"
80 CALL 47896:CALL 100
90 GOTO 50
100 PRINT"DATA ERROR
110 DATA 84,21,63,00,cd,d4
120 DATA bc,79,22,60,00,32
130 DATA 62,00,21,00,01,11
140 DATA 00,00,0e,41,df,60
150 DATA 00,21,85,00,22,86
160 DATA 01,c3,00,01,21,c1
170 DATA 01,36,c3,23,36,92
180 DATA 23,36,00,18,f0,21
190 DATA 31,6e,7e,fe,21,28
200 DATA 11,21,e5,5f,fe,fe
210 DATA 28,0a,21,af,57,fe
220 DATA 01,28,03,21,2f,57
230 DATA 36,c9,2a,05,01,e9 ●
```



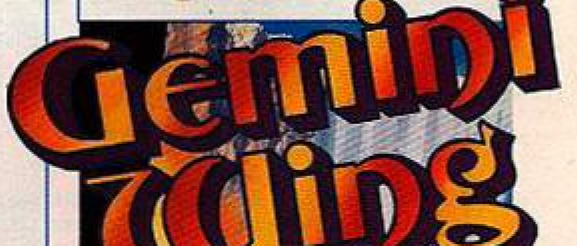
● To allow access to the later levels of *Thunderbirds* use these secret code words at the appropriate juncture.

2=RECOVERY
3=ALOYSIUS
4=ANDERSON

Do you want to be a *Skweek* sneak? Then get typing this mega shorty from Mike Wong. To get 255 lives on US Gold's cutesy spectacular simply:

A= Insert the game disk into the drive
B= LOAD "Disk"
C= EDIT 150
replace the 'CALL &8010' with 'END'
D=RUN
E=NEW
F=Insert disk with POKE saved on to it
G=LOAD "POKE" (or whatever filename you've given it)
H=Put the game disk back in the drive
I=RUN

```
1 'Skweek - Disk
2 'by Mike Wong
3 'Amstrad Action Nov 89
10 DATA 21,89,be,22,1a,9f
20 DATA c3,10,80,3e,ff,32
30 DATA 74,99,32,82,99,c3
40 DATA 36,72
50 FOR n=&BE80 TO &BE93
60 READ a$:a=VAL("&"+a$)
70 POKE n,a:NEXT
80 CALL &BE80 ●
```



Gemini Wing

The passwords for levels 1-8 of Virgin Games' brilliant bug shoot-em-up are:

THESTART
EYEPLANT
WHATWALL
GOODNITE
SKULLDUG
BIGMOUTH
CREEPISH



CLASSIC COLLECTION

We've got a little list, you gamesters, with all your requests for our blast-from-the-past section – so here's a load of your most requested repeats...

Batman

A poke for the original *Batman* appeared way back in *AA*11. It gives you infinite lives and uses **Tape Method 1.**

```
1 ' Batman - tape
2 ' by Phil Howard
3 ' AA Classic Collection
10 DATA 21,00,1c,36,00,c3,00,01
20 DATA 21,2d,22,36,d3,21,40,20
30 DATA 11,40,00,01,f2,01,ed,b0
40 DATA 21,40,00,e5,21,00,bb,e5
50 DATA 21,f2,01,e5,21,07,b8,e5
60 DATA 21,bb,02,e5,f1,21,ea,b1
70 DATA 11,d9,b1,f3,c9
80 MEMORY &2000
90 FOR x=&be00 to &be34
100 READ a$
110 POKE x,VAL("&"+a$)
120 NEXT
130 LOAD""
140 CALL &1a6a
150 LOAD"!",&2000
160 CALL &be00
```

6128/464 owners should change lines 50, 60 and 70 to read:

```
50 DATA 21,f2,01,e5,21,1f,b1,e5
60 DATA 21,bb,02,e5,f1,21,e5,b7
70 DATA 11,d4,b7,f3,c9
```

Thundercats

Here's a poke for infinite lives on Elite's Rave game. Use Tape Method 1.

```
1 ' Thundercats - tape
2 ' by GBH
3 ' AA Classic Collection
10 OPENOUT"!
20 MEMORY &7CF
30 CLOSEOUT
40 LOAD"tcats"
50 POKE &8E3,0
60 POKE &8E4,&BE
70 FOR n=0 TO 13:READ a$
80 POKE &BE00+n,VAL("&"+a$)
90 NEXT
100 CALL &7D0
110 DATA e5,21,00,00,22,33,78
120 DATA 22,34,78,e1,c3,d6,69b
```



Rana Rama

This golden oldie may be tough but you can save energy with this poke. Tape Method 1

```
1 ' Ranarama - tape
2 ' by Phil Howard
3 ' AA Classic Collection
10 DATA 21,00,9a,e5,01,00
20 DATA 02,c5,3e,ee,ae,77
30 DATA 23,c1,0b,78,b1,20
40 DATA f4,21,37,9a,36,c3
50 DATA 23,36,28,23,36,be
60 DATA 21,1e,9a,e3,e9,50
70 DATA 2e,46,2e,48,21,8c
80 DATA 79,36,00,c3,b5,5a
90 DATA memory &3000:y=0
100 FOR x=&BE00 TO &BE2F
110 READ a$:a=VAL("&"+a$)
120 POKE x,a:y=y+a:NEXT
130 IF y<>&1275 THEN 160
140 LOAD"rana":LOAD"!"
150 CALL &BE00
160 PRINT"Data error"
```



Harrier Attack

Amsoft's oldie but goldie gets hacked: Tape Method 1.

```
1 ' Harrier Attack - tape
2 ' Edward John Reid
3 ' AA Classic Collection
10 MODE 1
20 MEMORY &7FFF
30 LOCATE 15,10:PRINT
"PLEASE WAIT"
40 LOCATE 15,12:PRINT "LOAD-
ING..."
50 LOAD "!HARRIER ATTACK",
&8000
60 POKE &807F,&C9
70 CALL &8000
80 POKE &A538,0:' STOP ENEMY
90 POKE &A53B,0:' MISSILES
100 POKE &A6CE,0:' INF MIS-
SILES
110 POKE &A6CF,0:' BOMBS &
FUEL
120 CALL &9111
```



DAN DARE
PILOT OF THE FUTURE



The greatest of all space heroes gets a head start with this poke from yesteryear. It's entered using Method 1 and gives you infinite lives, but will only work on side A of the tape. **Tape Method 1**

```
1 ' Dan Dare - tape
2 ' by Patrick Connolly
3 ' AA Classic Collection
10 DATA 21,40,00,11,00,10
20 DATA 3e,16,cd,a1,bc,c3
30 DATA 40,00,3e,c9,32,58
40 DATA 7c,c9,18,f8
50 FOR x=&bd23 to &bd38
60 READ a$
70 POKE x,VAL("&"+a$)
80 NEXT
90 CALL &bd23 ●
```

Commando

This little baby gives you 255 lives and, unusually, works on both **Tape Method 1** and **disk!**

```
1 ' Commando - tape or disk
2 ' Amstrad Action Feb 88
10 MEMORY &5BFF
20 n$=""
30 ?"TAPE OR DISK VERSION
   (T/D)"
40 a$=UPPER$(INKEY$)
50 IF a$="D" THEN n$="com1"
60 IF a$="T" THEN n$="comman
   do"
70 IF n$="" THEN GOTO 40
80 LOAD n$,&5c00
90 FOR a=&9000 to &9012
100 READ b:POKE a,b
110 NEXT
120 POKE &5C33,&C3:POKE
    &5C34,0
130 POKE &5C35,&90
140 CALL &5C00
150 DATA 205,122,188,175,50,
    15,78
160 DATA 78,6,6,33,59,7,119,
    35,16
170 DATA 252,195,54,92 ●
```



MONTY ON THE RUN

That mole is back yet again, but if you use this poke he gets lots of lives. **Tape Method 1**

```
1 ' Monty on the run - tape
2 ' by Phil Howard
3 ' AA Classic Collection
10 DATA 21,b9,9c,36,b7,c3
20 DATA e9,82,21,6b,42
30 DATA 36,c3,23,36,07,23
40 DATA 36,03,21,40,00
50 DATA e5,21,89,03,e5,c3
60 DATA 40,42,e5,21,36
70 DATA 02,36,05,e1,f1,f3,c9
80 FOR x=&2e9 TO &310
90 READ a$
100 POKE x,VAL("&"+a$)
110 NEXT
120 MEMORY &2000
130 LOAD "monty on the run"
140 CALL &2f1 ●
```



EAGLES NEST

Infinite stamina, ammo and keys for the classic jackboot simulator *Into the Eagle's Nest*. **Disk.**

```
1Ø ' Into the Eagles Nest - disk
2Ø ' by Julian Page
3Ø ' AA Classic Collection
4Ø FOR x=&BFØØ TO &BF4Ø
5Ø READ z$
6Ø z=VAL("&"+z$)
7Ø POKE x,z
8Ø NEXT x
9Ø CALL &BFØØ
1ØØ DATA 21,4Ø,bf,cd,d4,bc,79,22
11Ø DATA 41,bf,32,43,bf,21,ØØ,Ø1
12Ø DATA 1e,ØØ,16,ØØ,Øe,41,df,41
13Ø DATA bf,21,22,bf,22,a4,Ø1,c3
14Ø DATA ØØ,Ø1,3e,c3,32,d4,a8,21
15Ø DATA 3Ø,bf,22,d5,a8,c3,ØØ,aØ
16Ø DATA 21,ØØ,ØØ,22,fØ,25,af,32
17Ø DATA 9Ø,Øa,32,a2,19,c3,ØØ,Ø1
18Ø DATA 84 ●
```



BOULDER DASH

Infinite lives and it allows you to start in any cave from A to M on levels 1, 2 and 3. **Tape Method 1.**

```
1 ' Boulderdash - tape
2 ' AA Classic Collection
1Ø MODE 1
2Ø MEMORY &7FFF
3Ø FOR n=&9ØØØ TO &9Ø1E
4Ø READ a$
5Ø POKE n,VAL("&"+a$)
6Ø NEXT
7Ø PRINT"Insert Tape and press play"
8Ø CALL &9ØØØ
9Ø DATA 21,ØØ,Ø2,11,25,7Ø
1ØØ DATA 3E,87,CD,A1,BC,AF
11Ø DATA 32,8Ø,1B,32,81,1B
12Ø DATA 32,82,1B,3C,32,54
13Ø DATA 19,32,74,19,C3,52
14Ø DATA 1F ●
```

If your fave rave keeps sending you to the grave, why not drop us a line and *demand* a good poking? Write to: *I Want A Good Poking, AA*, 4 Queen St, Bath BA1 1EJ.

THE ELITE CLUB

Some pilots on last month's roster were in need of help. Commander Jenkins has come up with the answers.

'What's an archangel?' asked Commander Rouyheen. It's simply a title, the future equivalent of an Admiral or General. This title also indicates that you are only 15 – 20 'Right on Commanders' from Elite status.

Commander Prang kept finding Thargoid fleets wherever he hyperspaced to another system. Commanders had better beware because activating the pause (delete) and 'F' key has the effect of calling Thargoids to the system you are about to arrive in. So switch these off by repeating the process.

The most useful advice, though, is how to find planets in a system. Cmdr Hawkeye had trouble tracking down Solega on Galatic Chart Two. To find a planet go to the galatic chart F5 and press the 'F' find key. Then type the name of the planet – in this case Solega – and the cursor will move to the correct planet.

Have you got the answer to any questions raised this month? If so, get on those communicators and let the EPC know. There are players out there who need help and you might be the only one who can save them.

MEGA TIPS

Combat School

As you progress up the rating table, fighting assumes increasing importance. Anarchy and Fuedal planets are happy hunting grounds, and those sun scooping skills come in really handy when you need to power up for a fast getaway.

Of all things in *Elite*, some of the most crucial decisions are those of target identification. If you're a law-abiding space trader you don't want to start blasting pirates only to find that you've taken a Viper police ship! Inert asteroids usually appear just in front of you and only serve to stop you going to fast while Torus jumping towards a planet.

Pirates have a tendency to appear in the top left hand corner of your scanner, and if there are four or more unidentified ships there then they're definitely pirates –so let slip the dogs of war.

Once you've committed yourself to a fight with pirates, there are a few very effective techniques that can help push the kill rate up. Always try and take them on from as far away as possible – missiles can help here. If a pirate gets behind you then it's best to slow down, pull up and turn 180 degrees to get them in the forward gun sight. Speed up, and with luck you can get on their tail and pop off shots in relative safety.

This method is the most effective against those pesky little sidewinders, because they are so manoeuvrable.

When rumbling with Thargoids, relax and ignore those Thargons and go for the mothership. Missiles, energy bombs and ECMs will have no effect so don't waste valuable firepower and time. When the mothership is little more than debris, collect the Thargons with your fuel scoops, it's cash and it's free!

When using an ECM to trash missiles wait until it has almost hit you, this way you get the chance to get three at once.

The golden rule of combat when all's said and done is to make sure you have got a nice little place you can hyperspace off to when the going gets too hectic.

ELITE: THE ROAD TO GLORY

A large number of new commanders have written to the EPC enquiring how exactly you progress up the ratings ladder. Archangel Savage sent us communique outlining his path to Elite Status. The message 'Right on Commander!' is the key to higher rating. He estimates that between 200 and 230 kills are enough to get you such a message, depending upon the type of craft destroyed as points value vary.

Competent commanders need 3 *Right on Commanders* to make **Dangerous**.
Dangerous commanders need **1** message to be assigned their **First Mission**.
First Mission survivors need **3** messages to be sent on the **Second Mission**.
Second Mission veterans need **2** *Right on Commanders* to be rated **Deadly**.
Deadly commanders and archangels need **1** message to face their **Third Mission**.
13 Messages later and you are **Elite**. Congratulations you have joined the ranks of the few.

● *ELITE ROSTER* ● ELITE ROSTER ● *ELITE ROSTER* ●

Week Two

● Commander Pip Texer
Rating: Dangerous
Alias: James Grant McQuarrie
Strathclyde, Scotland.
041 942 5922
My ship's name Titanic, *have people name their ships!*

● Commander Cameron
Rating: Dangerous (fugitive)
Alias: Alistair Cameron
Danestone, Aberdeen.
0224 825299
What do I do with this cloaking device I picked up from a furry-legged purple lobster I bumped into near Leonarii in Galaxy three?

● Archangel Groovy
Rating: Dangerous
Alias: Sam Bennett
Felixstowe, Suffolk.
0394 670633
Home Planet, Isoned (galaxy two). Motto 'You no longer have a problem!'

● Commander Scott
Rating: Competent
Alias: Mike Scott
Angus, Scotland.
0241 77918
Is there any way to predict or prevent a pirate attack when you dock at a Coriolis Space station?

● Commander Hawke
Rating: Unknown
Alias: V Hawke
Furzton, Milton Keynes.
0908 502868

● Archangel Jenkins
Rating: Elite
Alias: Bill Jenkins
Cramlington, Northumberland.
0670 736155

● Archangel Gabriel
Rating: Deadly
Alias: J Phillips
Pershore, Worcs.
0386 553468
How can I get onto Mission One?

● Commander Holt
Rating: Deadly
Alias: Alistair Holt
Gillingham, Kent.
0634 370089

● Archangel Savage
Rating: Elite
Alias: Alasdair Allan
18 Heriot Ave.
Kilbrine, Ayrshire.

● Commander Butlin
Rating: Competent
Alias: Roy Butlin
1 Broome Close
Horsham, West Sussex.

● Archangel Dan
Rating: Dangerous
Alias: Daniel Rooley
16 Park Mews
Pool-in-Wharfdale.

● Commander Wilo
Rating: Deadly
Alias: Iain Wilson
40 Boylestone Road
Glasgow, Scotland.

Insider dealing

Last month's *Shinobi* Cover Tape demo gets the PHIL HOWARD treatment this month in part six of his hacking tutorial...



It's one thing to go on (and on) about cheat-finding, but it's quite another to actually get on, and have a go at it in the flesh. I've steered clear of being too specific up until now, because not everyone owns the same games, and that's made the whole thing very awkward. But now there is a piece of code to play around with, that all *Amstrad Action* readers own – the very excellent birthday game *Shinobi*. So track down the tape and dust off your disassembler, cos' this is how to poke it.

The transfer listing

The first problem is to transfer the main program onto your own tape, or disk (if you own one) in a form that can be loaded, examined, altered and eventually run. Quite remarkably, the loader has no protection, so if you load "SHINOBI.BIN" to &0A99 and examine the code you will find at address &0AEC there is a jump to &0D00 (&C3,&00,&0D). This is the instruction which executes the main program once it has loaded and can be patched to redirect control to you. Those with a 6128 or expanded memory can use the BACKDUMP routine listed in *Insider Dealing* 48 (that's what it's for), but for those without, the routine SHINTRAN will transfer the main game program, in block form, onto your own tape.

Normally you will find that in multi-load games such as this, the main control program, loaded first, contains all the code needed to run the game. The subsequent loads/levels are merely new graphic information to wrap around the original workings, and are of no interest. The exception to the rule in this case, however, is *Platoon*, which consisted of four entirely different games which overlaid one another as the main game progressed (hence the absence of an adequate cheat).

Having transferred the program onto a tape, you can then put it onto disk with the routine DISCTRAN if you wish.



What's on offer

OK, so we know this game has four lives, there is a timer, a one-off "smart bomb" type feature, a high score table, and it's written by Richard Aplin, who, if you remember one of his earlier games, *Fly Spy* (see *AA* 23), has a tendency to build in cheats of his own. All in all, quite a bit to find.

Looking through the program with the ASCII display (use ASCIILST if you don't have a better one), you will find at &394A there is an indication of a built in cheat, but I'll leave the explanation of that to Richard (Alright, I can't get it to work!). Down at &1BC9 is the word CHEAT, this is displayed at the end of the game if it detects an alteration. &39C4 is the start of the high score table. If you want to insert your own name into the top position, change locations &39E3-&39E6, i.e.

```
Poke &39E3,asc("P")
Poke &39E4,asc("h")
Poke &39E5,asc("i")
Poke &39E6,asc("l")
```

Then insert the original tape (at the point where it stopped when you transferred it) and CALL &D00. The game will then load and run as normal. If you want to use the SHINLOAD program without running ASCIILST, First lower the memory top by typing OPENOUT "W":MEMORY &A00, then type LOAD "SHINLOAD". You can alter memory locations with POKEs and execute the *Shinobi* program by typing CALL &D00.

Moving right along, (I'm afraid you'll need a disassembler/monitor here) using the BYTE SEARCH, look for a &3E,&04 (load A, number of lives). It is found nestling at address &15B5. Look one step further, at the instruction &32,&B8,&0D (load location &0DB8,A) at &15B7, this tell you where the lives are stored, at &0DB8. It is possible here to change the 4 at &15B6, with a larger number (but keep it below 128 this time) i.e. Poke &15B6,10 then CALL &D00, as before, and count the lives.

Immortality, anyone?

To be perfectly honest, at this point, I took my own advice and searched the program for references to &0DB8, so that I could track down the location where the lives reduce, but although there are some references, it didn't unearth the correct place. This is due to the fact that a slightly different method from normal was used. At address &0F62 the H register is loaded with &0D then, separately, the L register is loaded with &B8, rather than HL being dealt with singly as a double byte register. Consequently, the BYTE SEARCH couldn't find it. It is a rather unusual method, but worth bearing in mind for the future, as is any different technique. The instruction &35 (dec(HL)) at &0F66 counts down the lives – try it out.

● BASIC listing DISCTRAN: rewind your copy tape: run the listing press PLAY and any key, make sure you have a disc in the drive.

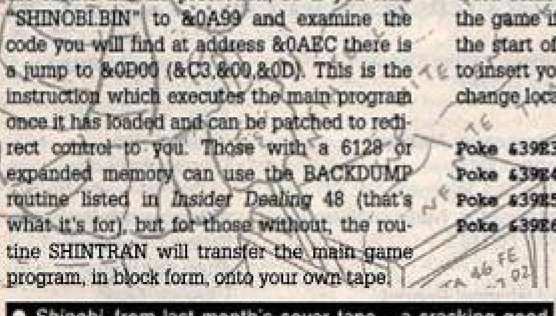
```
1 'DISCTRAN
2 'Transfers tape saved
3 'version of SHINLOAD
4 'to disc.
5 '
10 |TAPE.IN:|DISC.OUT
20 OPENOUT "W":MEMORY &A00
30 LOAD"shinload"
40 SAVE"shinload",b,&A99,&3500,&D00
```

Poke &F66,0 then CALL &D00, as before. The game now knows you have cheated and will display the fact at the end, but until then you have infinite lives.

Clock this

The next thing is the timer. Again using the BYTE SEARCH to locate all the &27 (DAA) instructions in the program will easily track down the right routine (eventually) for you (see box **A poke in time**). The DAA instruction is at &3200, the start of the routine is at

● *Shinobi*, from last month's cover tape – a cracking good game, thanks to Phil Howard...



&31EA. This routine has two parts. The first measures a second in time by counting up to 42 (&2A), looping back into the game if less. The second part actually reduces the timer, seconds first, then minutes when the seconds reach zero.

There are a number of ways the routine can be altered to stop the timer, but there is a snag. At the end of each stage your score is increased by the number of seconds you have left, using the second part of this same routine. If you replace any 3D (dec A) in the second part with &00 it will not only stop the timer, but it will also mean that the game will lock up at the end of the first stage (try poke &31FF,0 and see what happens). The best bet is to put a &C9 (return) in at the start of the first part. This will return to the game instead of counting the 42 loop, disabling the second timing mechanism and stopping the clock.

Poke &31EA,&C9 then CALL &D00 as before for infinite time.

Wait, there's more!

Finally, it occured to me that if there was a built in cheat for this game, it might be accessed by a sequence of key presses, so I set to work looking for &ED,&78 (IN A,(C)) the indicator of a key press routine (see *Insider Dealing AA* 49). The appropriate one turned up at &2335 in the key detection routine that starts at &2318. Searching for &18,&23 (to find calls) only found one reference, at &0D26, which is a jump number &C3,&18,&23. This is a method often used by a programmer when there is a need to relocate routines during the game's development. It is then only necessary to alter one jump number, rather than lots of calls.

Anyway, CALLS to &0D26 detect keypresses so a search for &26,&0D produces the locations, the number loaded into the H register before the call gives the block, and what returns back from the routine in the A register gives the number in that block. At &0F23 block no 8 is scanned (ESC key), at &0F4A block 3 is scanned (P key – pause), at &140C block 5 is scanned (SPACE key), and at other places Block 9 is scanned (JOYSTICK).

I didn't originally know the SPACE key was used, so back to the game to try it out. It proves to be a "smart bomb" type feature, which can only be used once (not a lot of people know that!). Back inside the program at &140A and &140B are two instructions which check whether it has been used; they restrict access to the keypress if it has already been used. It is a simple matter to stop these instructions checking up on you – blot them out (or at least the one which sends you back) with a zero, i.e. Poke &140B,0 then CALL &D00 as before. You now have infinite "whatever they are"

● BASIC listing SHINTRAN: rewind the SHINOBI.DEMO tape to the start: Run the listing allow the game to load as normal: When it stops, remove the game tape from the cassette player, insert a blank tape, press PLAY and RECORD, then any key. The important part of the program will save itself onto your tape. The m/c resets when complete.

```
1 'SHINTRAN
2 'This program transfers
3 'the main SHINOBI game
4 'onto tape as a standard
5 'BLOCK saved program.
6 '
7 '|tape if a 6128/664
8 '
10 DATA 06,08,21,1F,BF,11
20 DATA 00,50,CD,8C,BC,21
30 DATA 99,0A,11,00,33,01
40 DATA 00,0D,3E,02,CD,98
50 DATA BC,CD,8F,BC,C3,00
60 DATA 00,53,48,49,4E,4C
70 DATA 4F,41,44,3E,BF,32
80 DATA EE,0A,C3,99,0A
90 y=0
100 FOR x=&BF00 TO &BF2E
110 READ a$:a=VAL("&"+a$)
120 POKE x,a:y=y+a:NEXT
130 IF y<>&FB4 THEN 180
140 SPEED WRITE 1
150 OPENOUT "W":MEMORY &900
160 LOAD"shinobi demo"
170 CALL &BF26
180 PRINT"data error"
```

Credit where credit's due

There's lots more to discover, if you have the time to do so. Of course you can put all the pokes in at once. It was good of Virgin to leave the demo unprotected, and Richard Aplin to give us so much to play with – and a great game to boot!

I've had to postpone a particularly facinating delve into the depths of the tape/disk system (come on, its not that boring) until next month, but in the meantime, thanks to all those people who have written in – there are some really interesting ideas, so keep them coming!

● BASIC listing ASCIILST: Rewind your copy tape: run the listing press play and any key. If you have the program on disk it will also load. running the listing a second time will not reload the program.

```
1 'ASCIILST
2 'This program will load
3 'and display the ASCII
4 'representation of the
5 'SHINLOAD transfer.
6 '
10 IF PEEK(&FFF)=32 THEN 40
20 OPENOUT "W":MEMORY &A00
30 LOAD"shinload"
40 FOR x=&D00 TO &3C00 STEP 32
50 PRINT HEX$(x);TAB(7);
60 FOR y=0 TO 31
70 p=PEEK(y+x)
80 IF p>128 THEN p=p-128
90 IF p>32 THEN PRINT CHR$(p); ELSE
PRINT".";
100 NEXT:PRINT:NEXT
```

● SHINTIME: Timer routine at &31EA detected by finding DAA instruction at &3200

```
31EA 3A 90 0D      LD   A,(0D90H)
31ED B7            OR   A
31EE C0            RET  NZ
31EF 3A 8F 0D      LD   A,(0D8FH)
31F2 3D            DEC  A
31F3 32 8F 0D      LD   (0D8FH),A
31F6 C0            RET  NZ
31F7 3E 2A         LD   A,2AH
31F9 32 8F 0D      LD   (0D8FH),A
31FC 3A 8E 0D      LD   A,(0D8EH)
31FF 3D            DEC  A
3200 27            DAA
3201 FE 99         CP   99H
3203 20 14         JR   NZ,3219H
3205 3A 8D 0D      LD   A,(0D8DH)
3208 B7            OR   A
3209 20 08         JR   NZ,3213H
320B 32 8E 0D      LD   (0D8EH),A
320E 3C            INC  A
320F 32 90 0D      LD   (0D90H),A
3212 C9            RET
```

A POKE IN TIME

Putting numeric representations, of timers, clocks, percentage energy etc on the screen is an awkward task for the programmer. Within the program, numbers are dealt with by the counting system that the Z80 processor understands best, hexadecimal (see last month's *Insider Dealing*). If you've ever watched a Firebird game loading you will have seen it counting in hex. As you can see, this system doesn't suit the display of percentages or minutes seconds at all.

The Z80 instruction set, (faithful to the end) provides an ideal solution, in the shape of DAA (Decimal Adjust Accumulator). It was designed spcifically to perform the task of translating the M/Cs numeric language (hex) into ours (decimal), on the whole a pretty decent thing to do.

Suppose you wanted to take 1 from 50 (decimal) *without* converting to hex, using the instruction &D6,&01 (sub 01). Unfortunately, because the machine works out the final value in HEX the result is &4F – not really what is required. However, if you bung in a DAA instruction, then – miraculously – the result is changed to 49, ready for displaying on the screen. Neat, eh?

There is very little else that the instruction &27 (DAA) is used for in games software, other than on screen numbering (scores and timers etc). A search for this byte will be useful in tracking down routines where they are manipulated. It is a single byte instruction, however, so a search will fish out quite a few red herrings – but it will find the one you need eventually.

By the way, the number 100 (percent) is &64 in Hex and 60 (seconds minutes) is &3C, two very useful numbers when looking for numeric energy and timers.

AA Buyers Guide

This is the place to find what software and hardware is available for your CPC. We list programs by category, and provide producer; phone number; price; issue in which the item was reviewed; and last but not least, a brief description of the program's features and, where appropriate, shortcomings.

But don't take our word for it: if you're in doubt read the original review before you splash out, and make sure by asking the person you're buying from that it meets your particular needs. Best of all is a try-out, if you can find a friend who has what you're thinking of buying.

WORD PROCESSING

Brunword 6128

Brunning Software ☎ 0245 252854
£16.50 tape, £25 disk ● *AA24*
40 or 80 column mode; spell checker loaded into extra memory. Suitable for expanded 128K machines. Superscript/subscript effects on-screen. Includes Datafile. Available as 'Junior Brunword' at £12.95 in slightly cut-down version.

Pendown

Logotron ☎ 0223 323656
£19.95 disk ● *AA18*
A complete tutorial in the theory and practice of word processing – it's great fun, too. Open system, owing much to expensive DTP packages.

Protext

Arnor ☎ 0733 68909
£19.95 tape, £26.95 disk, £39.95 ROM ● AA3
Lightning fast on all tasks involving screen. True merging from separate files and disks to the cursor position is easy, and *Protext* supports standard CPC RSX's like DISC, TAPE, CAT etc. ROM version is excellent. Bad points: maximum file space limited to machine memory – about 22K on disk, 38K for the ROM version. As used by *AA*, if that's any recommendation (don't answer that).

Mini Office II

Database Software ☎ 0625 878888
£14.95 tape, £19.95 disk ● *AA6*
If you don't need full specification *Mini Office II* is for you. Remarkably cheap for word-processor, database and spreadsheet, plus comms software and more. Packaging and documentation is good, and programs work in a menu environment.



Pyraword

Discovery ☎ 0742 753423
£14.95 tape, £17.95 disk ● *AA18*
Similar in use to Discovery's *Pyradev*. It loads a profile of inks, printer codes and character set. Word counting, changing disk drives etc – "housekeeping" tasks – are handily located. Uses extra memory of 128K machines for spooling printed documents and storing text. True file merging is impossible, and control keys are odd. Margins cannot be set further apart than 80 columns, although placing a printer control character at the right hand side allows wider documents to be printed.



Tasword

Tasman Software ☎ 0532 4388301
464, 464D, 6128, £19.95 tape, £24.95 disk ● *AA1*
464 is the tape based version (the same as *Amsword*). 464D has enhancements for a disk drive. 6128 makes full use of a 6128's extra memory. The latter pair include mailmerge facility. Easy to get to know: comprehensive help screens. Screen operations are slow, but may be customised for greater speed.

Wordstar

Micropro/Cumana ☎ 0483 571666
£49.95 disk (CPM) ● *AA1*
Files can be as big as the space available. A professional program, with huge manual and a layout like mission control. If you want a function, it is in there... somewhere. Not fast.

PRINTERS

Manufacturers' recommended retail prices are listed as guidelines, but heavy discounts are offered by retailers.

Amstrad DMP/2160

☎ 0279 454555
£149 including VAT ● *AA6*
Load through front: printer must be above paper; but loading continuous stationery is easy. Poor NLQ mode. £5 for ribbons. Low priced, rather than a bargain.

Amstrad DMP3160

☎ 0279 454555
£199 + VAT ● *AA29*
Similar to but faster than DMP2160. Accepts all IBM and Epson printing codes. NLQ is front loading system. Good buy.

Amstrad DMP4000

☎ 0279 454555
£349 + VAT ● *AA20*
A real text cruncher. Wide carriage, and really flies across the paper, up to about 200 cps (in NLQ about 50 cps). Fonts available: standard 9 pin Pica, Elite, condensed etc. – but they are different, rather than just adjusted spacing for the same characters.

Amstrad LQ3500

☎ 0279 454555
£349 + VAT ● AA31
Cheapest 24-pin printer. Paper loaded from the rear – more time consuming. 30 cps in letter quality mode, and 62 cps in draft. Print quality excellent: plenty of different type-styles built in. Not ultra fast.

Citizen 120D

☎ 0800 282692
£199 + VAT ● *AA43*
Dimensions: 3.7 kgs, and 370mm x 90mm x 238mm. Draft quality is 'dotty,' and poor, but NLQ is sharp and simple. A quiet beast, with cable to the computer connected on the side. Manual includes a complete written breakdown of all the printer control commands, and their effects.



Epson LX800

☎ 01 902 8892
£279 + VAT ● AA29
Very fast for 9 pin. Control panel for style selection, and Epson compatible. Reverse winding sheets requires care, though.

Epson EX800

☎ 01 902 8892
£629 + VAT ● *AA29*
Upgradable in 101 ways – cut sheet feeds, serial ports, longer life ribbons. Quiet, with respectable printing speed. Sans Serif/Roman NLQ fonts incorporated. Control panel to select fonts – just the same font with different spacings.

Epson LQ500

☎ 01 902 8892
£399 + VAT ● *AA29*
Features galore and price to match. Handles both Sans Serif and Roman styles of NLQ, for instance. Colour-printing upgrade kit available. 24 pin printer, offering excellent quality printing. Control panel to select from many available fonts (ie. the same font at different widths).

Panasonic KXP3131U

☎ 0753 73181
£335.25 (discont.) ● *AA29*
Daisywheel therefore superb quality – but can't print bit graphics (no trendy screen dumps), and if you want different fonts, you have to plug in a different Diablo-compatible one. Not quiet.

Mannesmann Tally MT81

☎ 0734 788711
£149 + VAT ● *AA43*
Dimensions: 70mm x 100mm x 265mm; weight, 4.5 kgs. Prints Epson and IBM graphics. Draft mode print quality is good: square printhead pins put ink onto greater areas. The printed output is more ornate than the Citizen. Manual is superb, but falls down in failing to explain control codes: for that you have to buy the applications manual. Certainly a very good buy.

Panasonic KXP1081

☎ 0753 73181
£219 +VAT ● AA29
Similar to DMP2000/2160: chunky, 9 pins, 10 inch carriage and compatible with Epson codes. Thorough A4 manual, good NLQ mode – better than DMP – and condensed, draft and NLQ modes.

Star LC 24-10

☎ 01 840 1800
£399 + VAT ● AA47
A low-cost 24 pin, 10 inch, 80 column Letter Quality printer: 8 resident fonts, all operable from the front control panel and 3 print variations. See the review in this issue, page 22.



Star LC-10

☎ 01 840 1800
£229/299 + VAT ● AA32
First price is for standard dot matrix printer. Fonts selected by button, rather than typing in fiddly control code. Second price is for relatively inexpensive colour model. Uses multi-colour ribbon to produce different mixes, though there are currently no commercial programs to take advantage of this capability *(but see the Colourdump review in AA46, page 24)*.

INTEGRATED PACKAGES

Protext

Arnor ☎ 0733 68909
£19.95 tape, £26.95 disk, £39.95 ROM ● AA3
Lightning fast on all tasks involving screen. True merging from separate files and disks to the cursor position is easy.

Mini Office II

Database ☎ 0625 878888
£14.95 tape, £19.95 disk ● *AA6*
Astonishingly cheap word processor, database, spreadsheet, graphics, comms and label printer all-in-one, it's continued to sell, and sell, and sell... Not full specification, but at this price who's complaining?



Protext Filer/Office

Arnor ☎ 0733 68909
£24.95/£34.95 disk ● *AA34*
Database that works comfortably with *Protext*, has powerful sorting options and comprehensive invoice printer. Can be slow, but good value.

EDUCATIONAL PROGRAMS

Amstrad Selection

Fernleaf Education ☎ 0474 359037
£25.95 disk/tape ● *AA32*
For age range 7 to 12+: Eightprograms – including*Fletcher's Castle, Market Stall, The Perfume Hunter, The Raiders, Ferry Captain, Treasure,* and *Thorn Sea.*

Arc Master Pack Plus

Arc Education ☎ 0472 812226
£48 disk ● *AA32*
A massive pack of 70 programs: Junior; Primary; a parent/child adventure; DR Logo and word games. Each set available at £9 tape and £12 disk. Well presented with good graphics, reasonable musical ditties and plenty of options.

Kosmos

Kosmos ☎ 05255 3942
£9.95 tape, £13.95 disk● *AA32*
Answer Back Junior Quiz lets you either answer the question; make a choice from a number of options; or say whether something is true or false. There's also *Factfile 500*, sets of additional questions for the program: arithmetic, spelling, sport and natural history.

The other range from Kosmos: vocabulary tutors in French, Spanish, German and Italian.

Funschool 2

Database Software ☎ 0625 878888
£9.95 tape, £14.95 disk● *AA43*
So rare is it that educational software gets into the charts that it made the news pages of the weekly computer press. Actually there are three great packages here: under sixes, six to eights and over eights.



Wordhang

Bourne Education ☎ 0794 523301
£9.95 tape; £14.95 disk ● *AA32*
One of Bourne's range of ten programs. Others include *Happy Letters, Numbers* and *Writing* (all Infant); *Timeman One/Two* and *Map Rally* (all Junior); and the excellent *Chemistry* and *Physics Revision* (Senior).

BUSINESS/ ACCOUNTS

● *See also* Pendown *in* 'Word Processing'

Protext Office

Arnor ☎ 0733 68909
£34.95 ● CPM+, 6128 only ● *AA34*
Requires *Protext* and *Promerge* to run. Information inputted using *Protext*. Mail merge templates included, and very well implemented invoice printing feature. A genuinely useful business system.

SD Microsystems range

SD Microsystems ☎ 0462 675106
General Ledger ● £19.95 ● *AA32*
Sales Invoicer Pack ● £19.95 ● *AA26*
Small Traders Pack ● £24.95 ● *AA26*
Stock Accounting System ● £39.95 ● 6128 only ● *AA32*
SD Microsystems have a range of quality small business systems. Consult original reviews for in-depth explanations of what each does and how it differs from the others – or better still, ring them and ask.

DATABASES

AtLast Plus

Rational Solutions ☎ 056681 511
£39.95 ● CPM+,128k machines only ● *AA30*
Powerful: developed into user's requirements. Data capacity restricted only by disk size, and splitting fields into smaller elements possible. Printed output impressive. Beefy processing.

Masterfile III

Campbell Systems ☎ 0378 77762
£39.95 CPM+ ● *AA30*
With parent/child records – enabling tying together of records, saving space and time. Screen layouts and reports menu selected; not for faint hearts, but good results.

Random Access Database

Minerva Systems ☎ 0392 437756
£29.95 disk ● *AA6*
40 or 80 column screen. Good mathematical and string operations . Random disk accessing gives speed and power.
● *See also* Info-Script *in* '4. Integrated Packages'

SPREADSHEETS

Mastercalc 128

Campbell Systems ☎ 0378 77762
£33 disk ● 128K machines ● *AA4*
Can show two parts of spreadsheet at once. Includes notepad and calculator. Easy to use, but the mathematical formulae can only consist of the four basic arithmetic options. Slows down as more data is entered.

Matrix

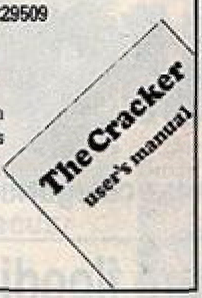
Audiogenic Software ☎ 01 861 1166
£34.95 disk ● *AA18*
Uses disk to store data – so good capacity on the plus side, - but poor speed on the minus side. Graphic options excellent. Onscreen prompts rare, making it hard at first. Calculating power good.

Supercalc II

Amsoft/Sorcim ☎ 0277 230222
£49.95 CPM+ ● *AA4*
First class documentation. Calculations can be determinative – performed on whether or not cell's contents match given value. Excellent help prompts and arithmetic functions.

Cracker

Newstar Software ☎ 0277 229509
£49.00 disk CPM+ ● *AA9*
Spreadsheets must be created from scratch. Documentation good, command sequences soon learned. Mathematical functions well done, with random numbers catered for. Files limited to 17K – and formulae programming not well implemented.



SOUND

Amdrum

Cheetah ☎ 0222 555525
£34.95 ● *AA13*
Digital drum machine. Editor comprehensive. Not Midi compatible: to hear output you plug it into amplifier.

DHCP Midi Interface

DHCP ☎ 0440 61207
£69.95 interface, £34.95+ disk s'ware ● *AA33*
DHCP produce Midi software for various Midi interfaces for CPC, which are incompatible with each other.

Micro Music Creator

First Byte Software ☎ 0225 765086
£9.95 tape, £14.95 disk, £24.95 ROM ● *AA38*
A music composer that lets you put staves and notes onscreen and play tune back. Accents can't be inserted, though. Other side is sampler to capture sounds from tape and play them through CPC. Excellent.

Miditrack Performer

EMR ☎ 0702 335747
£49.95 interface, £79.90/£89.90 tape/disk s'ware● *AA13*
Midi interface plus sequencing software to drive Midi equipped instruments. Records each instrument then plays them all at once. Onscreen layout similar to multi-track recorder. Excellent.

Sound Blaster

Siren Software ☎ 061 228 1831
£34.99 ● *AA23*
Amplifier and pair of loudspeakers that plug into CPC for maximum 2 watts sound effects.

Midi Interface

Silicon Systems ☎ 061 848 8959
£59.95 interface, £59.95 software ● *AA26*
Useless alone, but software you can use with it – DX7, FB01, MT32, D50 and CZ101 – is diverse. Software prices vary, and lack presentation of EMR sequencer. High performance.



Ram Music Machine

RAM Electronics (Datel) ☎ 0782 744707
£49.99 tape, £59.99 disk ● *AA17*
All in one music package: Midi interface, sound sampler and music editor. Sampler can handle one sample of just over a second. Midi controller software and music editor comprehensive. No through port, though, so 464 users must use tape version. And you can't edit live played Midi compositions.



Speech Synthesizer

DK'tronics (Datel) ☎ 0782 744707
£29.99 ROM
Add-on producing speech by RSX's: loudspeakers supplied. Cannot include speech in program for someone else's CPC, though. Even so, excellent speech quality and value.

VISION

AMX Art

Database ☎ 0625 878888
£69.95 disk (includes mouse) ● *AA7*
User friendly, if little unsophisticated compared to *Advanced Art Studio*, but mouse helps greatly. Colour, spraycans, textures, circles and host of other features.

Cherry Paint

Siren Software ☎ 061 228 1831
£9.99 disk ● *AA20*
WIMP controlled – ie mouse moves pointer to various icons to pull-down menus. B/W mode 2 only, but fun. Curves are difficult, but this is a bargain.

Advanced Art Studio

EEC ☎ 0753 888866
£24.95 disk ● *AA21*
Recently revitalised, this is the user-friendly, best and most powerful art package: works in all three modes. Can cycle through inks, and cut and paste different areas, transformations and reflections. Fill routines in coloured patterns. Available as a standard version for £15.95.



DART Scanner

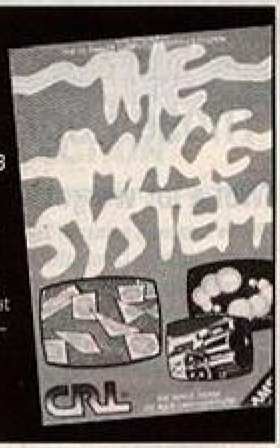
Dart Electronics ☎ 0502 513707
£79.95 ● *AA22*
Attach reading device to your DMP2000, 3000 or 3160. Feed in picture to printer: device reads in picture as B/W image. Quality onscreen isn't amazing, but it works and it's fun.

The Informer

Treasure Island Software ☎ 0492 593549
£29 disk ● *AA33*
For creating animated displays, suitable for classroom and shop window: takes text, graphics and animated displays and produces slide show. Works best but not only with *Parrotry Plus* (see below).

CRL Image System

CRL ☎ 01 533 2918
£14.95 disk/tape
● *AA12*
Boasts range of picture manipulations and distortions, but lacks art options. Best on finished pictures – like a mini Quantel box.

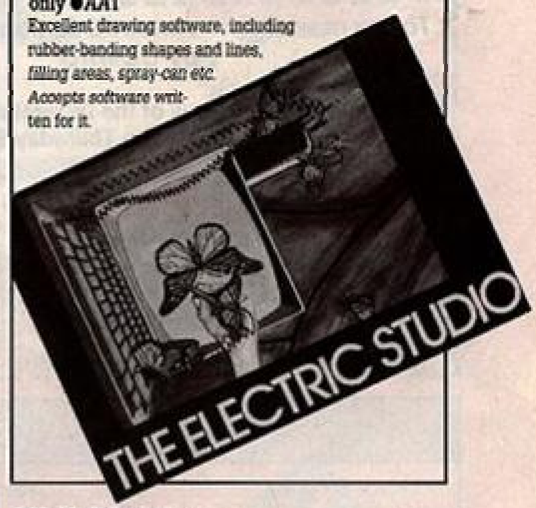


Parrotry Plus

Treasure Island Software ☎ 0492 593549
£19.95 disk ● *AA30*
Rather than lots of effects used anywhere and at any time, *Parrotry Plus* 'remembers' every alteration and plays through the list to create animation. Note: can't dump pictures to printer without external program.

Electric Studio Light Pen

Electric Studio ☎ 0462 420222
464D £24.99, £14.99 ROM ● 6128 £24.99 ROM only ●*AA1*
Excellent drawing software, including rubber-banding shapes and lines, *filling areas, spray-can etc. Accepts software written for it.*



Vidi Digitizer

Rombo Productions ☎ 0506 414631
£89.95 ● *AA15*
Grabs picture from video recorder or camera and puts it on CPC screen, allowing you to alter it with an package. Easy to use. Software on tape, disk or ROM includes superb printer dump routine.

● Corrections, additions or ideas for sections to be included are welcome. Drop a line to: *AA Buyers, Amstrad Action*, 4 Queen St, Bath BA1 1EJ

Don't miss out!
AA 51 is on the streets Thursday November 9. If you don't want to be left out in the cold, reserve a copy now!

AAfterthought

Shock horror. Man in suit seen at PC Show. Carey denies categorically.

Those Fourth Birthday Competition entries are flooding in...

Wot a lot we got!

We've created a monster! The *AA* Fourth Birthday Competition has led to such a massive response that the *AA* team is going to have to move to Future's Publishing's new premises two weeks ahead of everyone else – just to find room for all the entries!

We've already ordered the skip, but there's a chance we might have to hire another one – it depends on how many more entries we get.

So if you haven't send yours off yet – do it now!

Rumours Inc.

Our foreign correspondent (*Boozo McHack – Daily Codswallop*) has just returned hot-foot from the PC Show at Earls Court with some juicy scandal.

- A senior spokesperson on the Amstrad stand responded quickly to the rumour than Amstrad was to drop the CPC – *"Complete b****cks!"* he quoth wisely...
- Soon-to-be-ex-editor Steve Carey was spotted at the show wearing a *suit*! Experts remain baffled, and a forensic team is at the scene of the accident now.
- Soon-to-be-editor Rod Lawton spent a quiet evening in his hotel room before the show. He insisted it was to avoid the glare of publicity before assuming the weighty mantle of editorship, but subsequent investigation revealed that he had in fact accidently locked himself in the loo.

FILLER COMP #4

OK folks, it's caption time. Study the picture below and decide just what James Bond *is* saying to Felix...

First prize of a fiver (you can't say we're not generous) goes to the funniest answer. Only one condition. It's got to be printable.

Send your caption to Filler Comp #4, Amstrad Action, 4 Queen Street, Bath BA1 1EJ. Closing date 30th November.



Stop him – he's reserved hisself a copy of *AA*!

To the newsagent: **Amstrad Action** *is distributed by COMAG*

Dear newsagent,
Please reserve me a copy of the December issue of *Amstrad Action*, due out on Thursday 9 November

Name:

Address:

Telephone number:

If you're under 16, please get your parent or guardian to sign here:



The little darling

The ever-so-modest Trenton has been hiding a little secret. He has received a letter from an admirer.



The lady in question (oh yes!) wants to see more pictures of him in the magazine because she thinks he is a "gorgeous hunk".

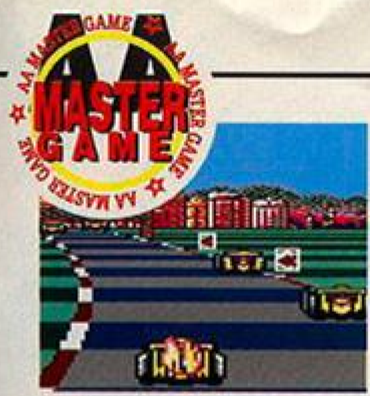
● Trenton Webb: "gorgeous hunk".

Advertisers Index

THE ACTION OFFERS

BUY PRODUCTS FROM YOUR FAVOURITE CPC MAGAZINE.

All the prices include postage, packing and VAT. You can trust us, we don't intend to leave the planet for quite some time!



CONTINENTAL CIRCUS
from Virgin

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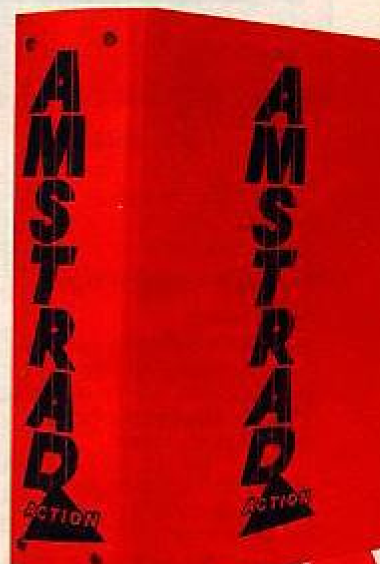
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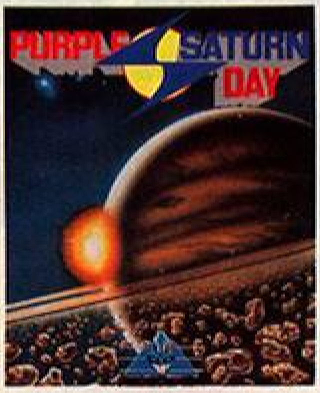
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AA Issue 48

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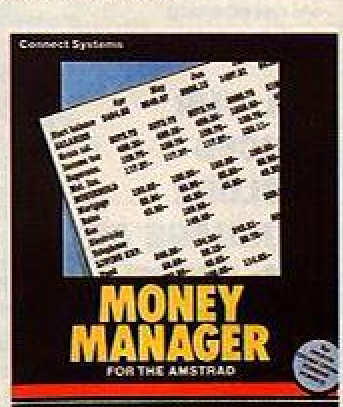
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"Thunderbirds has the kind of depth and long term appeal that I find really rewarding"
Steve Carey, AA Issue 47.

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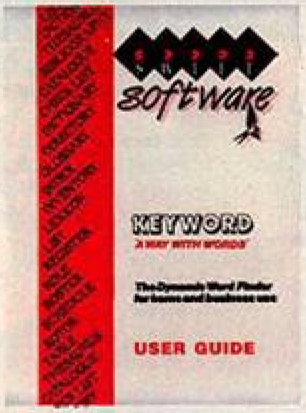


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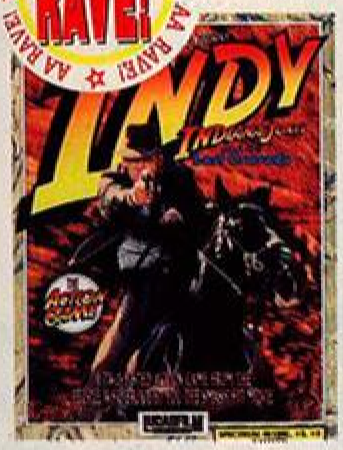


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Trenton Webb **AA Issue 49**

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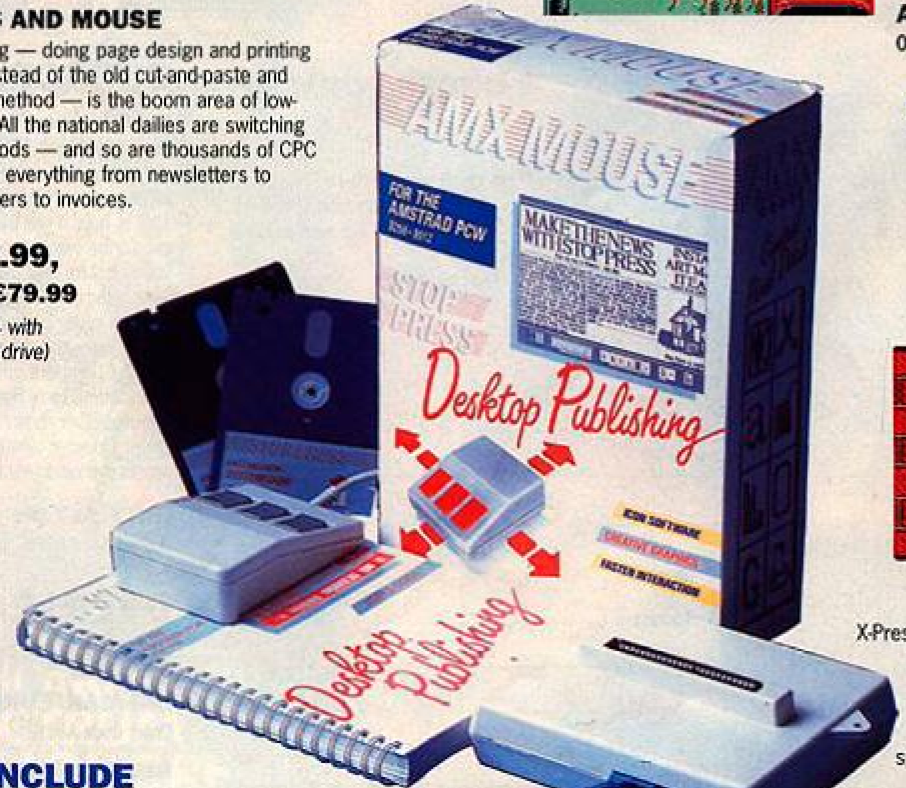
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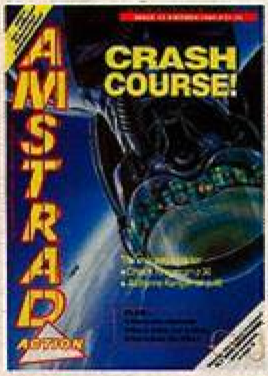
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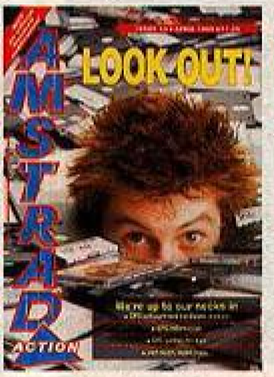
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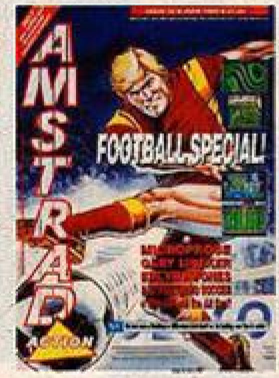
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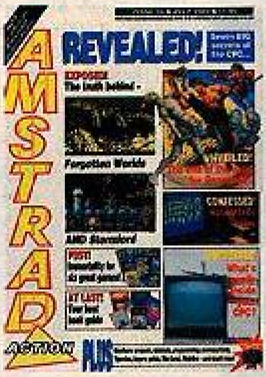
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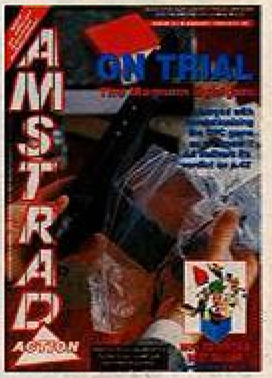
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Cover Disk: See Shinobi, the latest mega fighting game from Virgin.
Daleks, classic CPC fun and Easisheet, a complete spreadsheet.
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